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THE

WEEKLY WEATHER REPORT

OF THE

METEOROLOGICAL OFFICE

FOR THE YEAR

1887

(VOL. IV.—SECOND SERIES

CONTAINING

SYNOPTIC CHARTS,

AND

DESCRIPTIVE SUMMARIES OF THE WEATHER FOR EACH DAY;

ALSO

TABULAR SUMMARIES OF TEMPERATURE, RAINFALL, AND BRIGHT SUNSHINE, FOR EACH WEEK.

WITH FOUR APPENDICES.

Published by the Authority of the Meteorological Council.

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PREFACE.

In the Weekly Weather Report for 1887 two new columns have been added to the Table on the first page of each Report, giving for *Accumulated Temperature*, above and below 42°, the difference between the weekly values for the current year and the means for the corresponding periods in preceding years :—

Reports from six new stations in Scotland, showing the conditions prevailing over the inland parts of that country, have been added to those previously published. The total number of stations in the British Islands, from which these reports are now prepared is 78.

The general arrangement of the Report is as follows :—

LIST OF DISTRICTS.

For the purpose of this Report the United Kingdom is divided into eleven Districts, which are shown on the accompanying map, distinguished by the numbers 0 to 10. The positions of the stations supplying information are marked on the map by black dots, and their names are given in the following list, arranged under the districts to which they belong :—

METEOROLOGICAL DISTRICTS.

0. SCOTLAND, N.—Sumburgh Head, Stornoway, Wick, Lairg, Fort Augustus.

1. SCOTLAND, E.—Nairn, Aberdeen, Braemar, Ochtertyre, Leith, Marchmont.

2. ENGLAND, N.E.—Alnwick Castle, Durham, Shields, Scarborough, York, Spurn Head.

3. ENGLAND, E.—Hillington, Yarmouth, Geldeston, Cambridge, Rothamsted, Ingatestone.

4. MIDLAND COUNTIES.—Bawtry, Loughborough, Leicester, Cheadle, Churchstoke, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Strathfield Turgiss, Dungeness, Hastings (St. Leonard's), Southampton, Hurst Castle, Stowell.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Glenlee, Douglas (Isle of Man).

7. ENGLAND, N.W.—Newton Reigny (Penrith), Barrow-in-Furness, Stonyhurst, Blackpool, Manchester, Liverpool Observatory (Bidston), Llandudno, Holyhead.

8. ENGLAND, S.W.—Llandovery, Pembroke, Arlington (N. Devon), Cullompton, Falmouth, Plymouth, Prawle Point.

9. IRELAND, N.—Malin Head, Londonderry, Mullaghmore, Belmullet, Markree Castle, Brookeborough, Armagh, Donaghadee, Edgeworthstown.

10. IRELAND, S.—Dublin, Parsonstown, Kilkenny, Waterford, Roche's Point, Valencia, Killarney, Foynes.

Besides these stations there are two in the Channel Islands, viz., Scilly (St. Mary's), and Jersey (Noirmont), which cannot be conveniently placed in any of the Districts.

TEMPERATURE.

The Summary on the first page of each Report gives for each week and each District the absolute *maximum* and *minimum*, the averages of both the daily extremes, the daily mean Temperature, and its difference from the mean of the corresponding period as derived from observations of the 20 years, 1861–80, together with the values for Accumulated Temperature above and below 42° F.

Daily Mean Temperature.

The daily mean Temperature shown in the Tables is calculated from the mean between the daily maxima and minima, due regard being had for the varying relation found to subsist, from month to month, between the true mean temperature of the day derived from 24 hourly observations, and the means of the daily maxima and minima for a series of years, as recorded at Greenwich and at the self-registering Observatories of the Meteorological Council.

The approximate Mean Daily Temperature for any week is found by multiplying the *difference* between the means of the seven observed maxima and minima by the proper coefficient for the month, as shown in the following Table, and adding the product to the observed minimum :—

Months.	Coefficient.
January. December.	0·520
February. November.	0·500
March. October.	0·485
April. September.	0·476
May. August.	0·470
June. July.	0·465

Example :

The mean maximum temperature for a week in December being	48°·1
The mean minimum	39·3
The difference is	8·8

This difference 8·8 × ·520 (the coefficient for December) = 4·6.

This product when added to the mean minimum, 39·3, gives 43°·9, the required mean daily temperature of the week.

Accumulated Temperature.

The Tables of Accumulated Temperature are designed to give persons engaged in agriculture better means of estimating the manner in which vegetation is affected by temperature than that afforded by the more usual methods of treating the readings of the thermometer. They show for each week, and for the whole period from the commencement of the year, the weekly and progressive values, respectively, of the combined amount and duration of the excess or defect of the air temperature, above or below a suitably fixed standard, or *base temperature*. The base adopted is 42° F., as being nearly equivalent to 6° C. This has been considered by Continental writers on these subjects to be the critical value, the temperature above which is mainly effectual in starting and maintaining growth, and in completing the ripening, of agricultural crops in a European climate. This base is also convenient as being 10° F. above the freezing point on the Fahrenheit scale.

A 52987. 350.—2/88. Wt. 36.

The Accumulated Temperature is expressed in Day-degrees; a Day-degree signifying 1° F. of excess or defect of temperature, above or below 42° F., continued for 24 hours; or any other number of degrees for an inversely proportional number of hours.

When the temperature during any period remains either wholly above or below the base temperature, the difference between the base and the mean temperature gives the correct accumulated temperature. In other cases this difference gives an approximate value for the accumulated temperature, which does not depart greatly from the truth, the deviation depending on the greater or less extent of the variations of the temperature above or below the base. Further, since the mean between the maximum and minimum of any day is nearly equal to the mean temperature of the day, the difference of the mean of the maximum and minimum from the base will also give, directly, an approximation to the accumulated temperature for the day.

The following rules, however, supply a still closer approximation to the true values sought, and they have been adopted for the preparation of the Tables in the Report. They may be applied to any other base temperature as well as to 42° F., with the slight modification of the numerical coefficients mentioned below.

RULES for computing, for a WEEKLY PERIOD, from the observed MAXIMA and MINIMA, the ACCUMULATED TEMPERATURE above or below 42° F.

1. Obtain the mean temperature, from the means of the seven observed maxima and minima, in the manner already described for daily values.

2. In obtaining the accumulated temperature four cases may occur, to which the following rules will apply:—

Conditions of Temperature.	To obtain the Accumulated Temperature.	
	Above 42° F.	Below 42° F.
If the minimum is *above* 42° F. or *equal* to 42° F. -	Subtract 42° F. from the mean.	There is none.
If the minimum is *below* 42° F., but the mean for the day is *above* 42° F.	From the difference between the mean for the day and the minimum deduct the accumulated temperature below 42° F., calculated as stated in the next column.	The required quantity is the excess of 42° F. over the minimum, multiplied by the coefficient 0·4.
If the mean for the day is *below* 42° F., but the maximum is *above* 42° F.	The required quantity is the excess of the maximum over 42° F., multiplied by the co-efficient 0·4.	From the difference between the mean for the day and the minimum deduct the accumulated temperature above 42° F., calculated as stated in the preceding column.
If the maximum is *below* 42° F., or *equal* to 42° F. -	There is none.	Subtract the mean from 42° F.

In each of the above cases the result will be the average daily value, and must be multiplied by 7 in order to obtain the value for the whole week.

The coefficient varies with the duration of the period, and also with the base temperature.

The coefficient above given, in Rule 2, is for a weekly period, and for the base temperature 42° F. The following are its values for other base temperatures, viz., for 32° F., 0·4; for 52° F., 0·33; for 62° F., 0·25.

A full explanation of the principles on which these rules are based will be found in Appendix II. to the Quarterly Weather Report for 1878.

RAINFALL.

The Summary gives for each week and each District the number of rainy days, and the total fall of rain, as well as the progressive values reckoned from the commencement of the year, and the difference between these amounts and the means for the corresponding week in the 20 years 1866–85.

BRIGHT SUNSHINE.

The Summary gives for each week and each District the numbers of hours of sunshine recorded, and the percentage of that time to the whole time during which the sun is above the horizon; also the progressive values reckoned from the commencement of the year, together with the difference between them and the mean for the corresponding period in the five years 1881 to 1885.

APPENDICES.

Appendix I.—This contains (1) Summaries for each Quarter and for the whole year, of the Temperature and Rainfall records for each District, and (2) Tables giving for each district the monthly values for Rainfall, Accumulated Temperature (above and below 42° F.), and Bright Sunshine, as well as the progressive values for each from the commencement of the year, in continuation of the values given for 1878 to 1886.

Appendix II. gives for year 1887, and for each District, the weekly and progressive values for Rainy days, Amount of Rainfall, Accumulated Temperature (above and below 42° F.), and Bright Sunshine, in continuation of the values for the years 1878–86 printed in Appendix II. to the Weekly Weather Report for 1886.

Appendix III. gives for each District, during the nine years 1878–86, and also during the ten years 1878–87, the mean aggregate values from the beginning of the year to the end of each week in the year for the following elements: Days of Rain, Amount of Rainfall, and Accumulated Heat (above and below 42° F.); also for the six years 1881–86, and for the seven years 1881–87 the corresponding values for Bright Sunshine (both the Number of Hours recorded, and the per-centages of possible duration). These are in continuation of the values published in Appendix III. of the report for 1886.

Appendix IV. gives for each District—(*a*) for the eight years 1878–85, (*b*) for the nine years 1878–86, and (*c*) for the ten years 1878–87—the Mean Temperature of the Air for each Week in the year. This Appendix is entirely new.

Tables showing for each degree of Latitude from 49° N. to 58° N., and for each Weekly and Monthly period, the total number of hours during which the Sun is above the Horizon, together with their Reciprocals, are given in the Preface to Vol. I. of this Series.

TABLE SHOWING THE REPORTS RECEIVED TOO LATE FOR INSERTION IN THEIR PROPER PLACES.

No. of Report.	For Week ending	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the Week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day Degrees). Above 42° F.	Below 42° F.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Per-centage of possible duration.
			°	°	°	°	°	°				Inches.	Inches.		
1	January 10	Glencarron	36	21	31·7	25·4	28·7	−10·1	0	93	3	0·61	?	*	*
2	„ 17	Glencarron	43	26	40·5	?30·8	?35·8	−?0·9	0	?43	6	1·20	?	*	*
3	„ 24	York	—	—	—	—	—	—	—	—	—	—	—	10	18
4	„ 31	York	—	—	—	—	—	—	—	—	—	—	—	11	19
5	February 7	Hereford	57	27	49·9	34·7	42·3	+ 2·3	33	20	1	0·24	−0·37	*	*
„	„ 7	Llandudno	56	34	50·7	38·9	44·4	+ 2·0	34	11	4	0·27	−0·35	17	27
14	April 11	York	—	—	—	—	—	—	—	—	—	—	—	48	52
16	„ 25	Cirencester	65	30	56·4	35·4	45·6	− 2·7	53	18	5	0·40	−0·12	42	42
„	„ 25	Stonyhurst	—	—	—	—	—	—	—	—	—	—	—	29	29
„	„ 25	Brookeborough	58	32	51·2	38·2	44·4	− 3·7	33	11	5	1·38	?	*	*
17	May 2	York	—	—	—	—	—	—	—	—	—	—	—	44	42
19	„ 16	Leicester	67	37	58·4	42·1	49·8	− 1·6	58	0	5	0·17	−0·28	31	28
21	„ 30	York	—	—	—	—	—	—	—	—	—	—	—	15	13
23	June 13	Marchmont	70	43	64·9	49·1	56·5	+ 3·1	102	0	2	0·08	−0·52	43	36
„	„ 13	Stonyhurst	—	—	—	—	—	—	—	—	—	—	—	59	50
24	„ 20	Aberdeen	—	—	—	—	—	—	—	—	—	—	—	64	52
„	„ 20	York	—	—	—	—	—	—	—	—	—	—	—	54	46
„	„ 20	Blackpool	79	47	71·8	51·0	60·7	+ 4·5	131	0	0	—	−0·52	66	56
26	July 4	Malin Head	69	54	64·0	56·0	59·7	+ 3·5	124	0	4	0·37	?	*	*
28	„ 18	Killarney	69	43	66·7	52·3	59·0	− 0·6	119	0	5	0·51	?	*	*
29	„ 25	Scarborough	—	—	—	—	—	—	—	—	—	—	—	53	47
„	„ 25	York	—	—	—	—	—	—	—	—	—	—	—	55	49
„	„ 25	Waterford	79	46	73·5	53·3	62·7	+ 2·0	145	0	3	0·18	−0·47	*	*
30	August 1	Cambridge	—	—	—	—	—	—	—	—	—	—	—	56	52
31	„ 8	Cambridge	—	—	—	—	—	—	—	—	—	—	—	71	68
32	„ 15	Cambridge	—	—	—	—	—	—	—	—	—	—	—	50	40
34	„ 29	Scarborough	—	—	—	—	—	—	—	—	—	—	—	43	44
„	„ 29	Cambridge	—	—	—	—	—	—	—	—	—	—	—	37	38
35	September 5	Londonderry	67	45	63·1	49·4	55·9	− 0·2	97	0	7	2·77	+1·90	*	*
38	„ 26	Braemar	65	38	60·2	43·4	51·4	+ 3·1	66	0	2	0·12	−0·80	33	39
„	„ 26	Plymouth	68	43	63·0	50·1	56·2	− 0·6	99	0	1	0·13	−0·83	47	56
41	October 17	Leicester	59	29	51·0	32·4	41·4	− 8·1	25	38	4	0·21	−0·41	32	43
„	„ 17	Llandudno	54	33	49·5	40·3	44·8	− 7·0	27	5	3	0·57	−0·33	11	15
42	„ 24	Laudale	55	32	?50·8	40·8	?45·7	−?1·3	?31	?3	5	1·24	−0·56	*	*
„	„ 24	Llandudno	54	38	52·7	43·8	48·1	− 2·2	43	0	1	0·11	−0·79	10	14
43	„ 31	Llandudno	57	32	51·3	41·5	46·3	− 2·3	32	1	6	0·59	−0·36	10	15
44	November 7	Scarborough	49	36	48·0	39·3	43·7	+ 0·2	23	8	7	1·62	+0·90	—	—
„	„ 7	Bawtry (Hesley Hall)	55	33	50·4	37·3	43·9	− 1·0	13	33	7	1·01	+0·43	*	*
46	„ 21	Churchstoke	43	20	38·2	24·0	31·1	− 8·9	0	76	1	0·06	−0·75	22	40
47	„ 28	Glencarron	—	—	—	—	—	—	—	—	—	—	—	0	0
51	December 26	Llandudno	44	32	42·5	35·5	39·1	− 3·0	1	24	2	0·08	−0·64	9	18
„	„ 26	Londonderry	45	30	42·1	34·5	38·5	− 2·2	0	28	6	0·44	−0·46	*	*
52	January 2, 1888	Glencarron	41	22	36·7	28·5	32·8	− 4·4	0	64	6	0·54	?	1	2
„	„ „ „	Blackpool	41	?	38·8	?	?	?	?	?	5	0·45	−0·27	6	12
„	„ „ „	Llandudno	53	26	41·2	31·6	36·6	− 5·5	0	38	2	0·15	−0·55	5	10

ERRATUM.—In Appendix I., p. [9], Mean Rainfall for the Wheat-producing Districts for year 1887, for "26·0" read "21°·0."

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 1.] *New Series.* WEEK ENDING MONDAY, 10TH JANUARY, 1887. [*Price 4d.* [*Annual subscription post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 4.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	46	16	38·2	28·7	33·6	5 below.	0	− 5	59	+23	0	− 5	60	+27
	1. SCOTLAND, EAST	42	17	35·7	26·7	31·4	7 below.	0	− 6	74	+30	0	− 4	74	+33
	2. ENGLAND, N.E.	40	14	36·0	27·7	32·0	6 below.	0	− 5	70	+29	0	− 7	70	+41
	3. ENGLAND, EAST	39	14	35·4	27·3	31·5	6 below.	0	− 7	74	+29	0	−10	74	+44
	4. MIDLAND COUNTIES	44	16	35·5	25·9	30·9	7 below.	0	− 8	78	+33	0	−12	78	+49
	5. ENGLAND, SOUTH	44	21	39·1	29·2	34·4	5 below.	0	−10	53	+17	0	−13	53	+35
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	42	10	35·7	25·9	31·0	8 below.	0	− 8	77	+42	0	− 9	77	+50
	7. ENGLAND, N.W.	45	14	36·1	28·0	32·2	8 below.	0	− 8	69	+34	0	−11	69	+46
	8. ENGLAND, S.W.	50	24	41·7	31·6	36·8	5 below.	0	−16	36	+15	0	−20	36	+26
	9. IRELAND NORTH	50	12	38·8	27·8	33·5	8 below.	0	−11	60	+30	0	−15	60	+41
	10. IRELAND, SOUTH	52	22	41·7	31·7	36·9	5 below.	0	−19	36	+13	0	−23	36	+25
	— CHANNEL ISLANDS	51	32	45·6	37·2	41·6	3 below.	10	−10	21	+ 9	10	−17	21	+16

Rainfall. **Bright Sunshine.**

	DISTRICTS. (See p. 4.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	12	4 more.	5	0	1·2	+ 0·3	7	15	7	+ 2	15	+ 3
	1. SCOTLAND, EAST	5	8	3 more.	5	+ 2	0·8	+ 0·3	3	7	3	− 8	7	−17
	2. ENGLAND, N.E.	7	11	6 more.	7	+ 4	1·1	+ 0·6	5	9	5	− 2	9	− 4
	3. ENGLAND, EAST	6	8	3 more.	6	+ 2	0·8	+ 0·3	4	7	4	− 6	7	−11
	4. MIDLAND COUNTIES	6	11	5 more.	6	+ 2	1·1	+ 0·5	10	18	10	+ 1	18	+ 1
	5. ENGLAND, SOUTH	5	9	2 more.	5	+ 1	0·9	+ 0·3	12	21	12	+ 2	21	+ 4
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	4	12	2 more.	4	0	1·2	+ 0·2	9	17	9	+ 3	17	+ 5
	7. ENGLAND, N.W.	6	9	1 more.	6	+ 2	0·9	+ 0·1	6	12	6	− 2	12	− 2
	8. ENGLAND, S.W.	6	13	3 more.	6	+ 1	1·3	+ 0·3	16	29	16	+ 4	29	+ 7
	9. IRELAND, NORTH	5	12	4 more.	5	0	1·2	+ 0·4	11	22	11	0	22	+ 1
	10. IRELAND, SOUTH	5	15	6 more.	5	0	1·5	+ 0·5	16	30	16	+ 2	30	+ 3
	— CHANNEL ISLANDS	7	13	4 more.	7	+ 2	1·3	+ 0·5	30	52	30	+16	52	+27

General Remarks.

Weather has been in an exceedingly unsettled condition in all parts of the Kingdom. Falls of rain, sleet, or snow were of very frequent occurrence; in most parts of England the fall of snow was unusually heavy. At some of our south-western and western stations thunder and lightning were experienced.

Temperature has continued below the mean in all districts; in the "Channel Islands" the deficit was only 3°, but in most parts of Great Britain and in the north of Ireland it has been as much as 6°, 7°, or 8°. At several stations the average temperature for the week was very low; at Glenlee it was as low as 25°·7, at Newton Reigny 27°9, and at Brookeborough 28°·4. The highest of the maxima, which were registered on irregular dates, ranged from 39° in "England, E." to 52° in "Ireland, S." On most days the maxima were very low, thus at Braemar the average of the maximum readings for the week was only 32°·9, at Cheadle 33°·4, at Bawtry 33°·6, and at Armagh 34°·3. The lowest of the minima, which were generally recorded either on the 6th, 7th, or 10th, ranged from 10° in "Scotland, W." (at Glenlee), and 12° in "Ireland, N." (at Armagh), to between 14° and 24° in all other districts excepting the "Channel Islands", where the lowest reading was 32.

Rainfall has been more than the mean in all districts.

Bright sunshine has been very deficient generally, but in the "Channel Islands" as much as 52 % of the possible amount of duration has been recorded.

Depressions observed.—During the earlier part of the period rather deep depressions were passing north-eastwards outside our north-western and northern coasts, while subsidiary disturbances were shown over England. As the week progressed, however, the primary depressions disappeared, while the secondary disturbances over England developed into an independent system which had only just dispersed (having gradually filled up) at the end of the period. Moderate to strong winds between South-West and North-West were general during the first part of the week, but they subsequently circulated round the low pressure system over England, being Easterly in the north, Northerly in the west, Westerly in the south, and Southerly in the east. At the end of the period the barometer was falling briskly in the extreme west, the wind had shifted to the Southward or South-Eastward on our western coasts, and was increasing quickly in force.

A 50084. 350.—1/87. Wt. 44. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

Weather

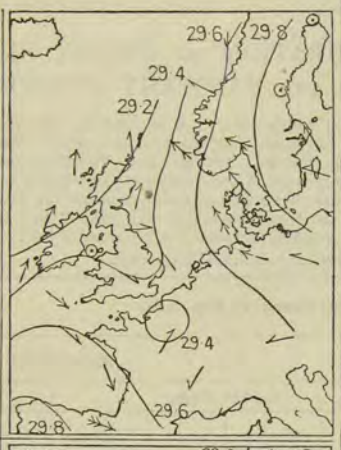
During the 24 hours succeeding

8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, January 4.

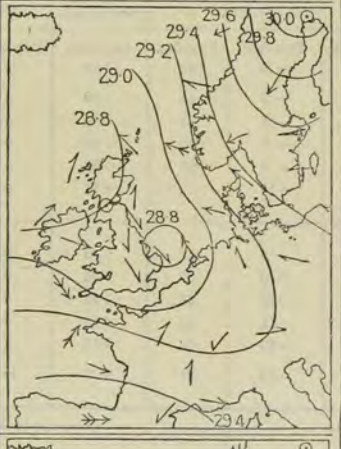
Weather fair at some of our western and also at the Scandinavian stations, but cloudy elsewhere, with snow in the north of Scotland and east of England. Rain or sleet falling later in nearly all parts of the Kingdom.

Temperature fallen in our Islands, but risen at most of the Continental stations; readings over our Islands now ranging from 44° at Scilly to 30° at Cambridge and Dungeness. Frost occurring in most places at night.

Wind North-Westerly on the west coasts of our Islands and France, with gales over the Bay of Biscay and also at the mouth of the Channel; strong South-Easterly over the Netherlands and the eastern shores of the North Sea. Subsequently backing to the Southward on our western coasts.

Sea rather rough in the south and south-west.

Barometer rising at most of our western and northern stations, but falling elsewhere. Areas of high pressure lying over the Baltic and Spain, with a depression off the north of Scotland and a well-marked subsidiary disturbance over the eastern part of the Channel. Brisk fall setting in later in west and north-west.



Wednesday, January 5.

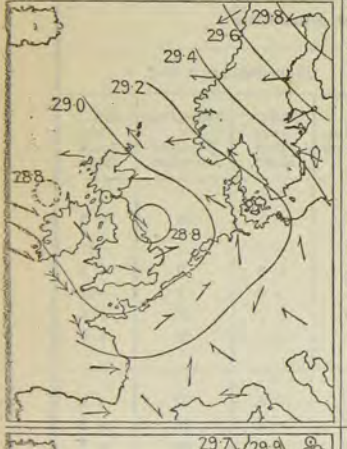
Weather fine in the west of Norway and south of France, but cloudy elsewhere, with snow over the greater part of England. Some improvement taking place over our Islands later, but weather remaining showery.

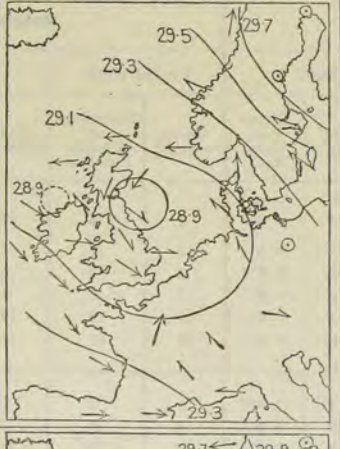
Temperature risen generally; readings over the United Kingdom ranging from 44° at Jersey to 30° at Leith and York. Sharp frost occurring in most places at night.

Wind strong from West or North-West on our west coasts, with gales at the mouth of the Channel. South-Westerly gales in the south-west of France; moderate to strong South-Easterly winds over the east of England and the North Sea. Subsequently shifting to North-West on our south and east coasts.

Sea high at Scilly, and rough or rather so on most parts of our coasts.

Barometer falling generally. Pressure relatively high over the Gulf of Bothnia and Spain, with a depression off the north-west of Scotland and a subsidiary disturbance over the north-west of England. Latter disturbance subsequently moving south-eastward to the east of England.





Thursday, January 6.

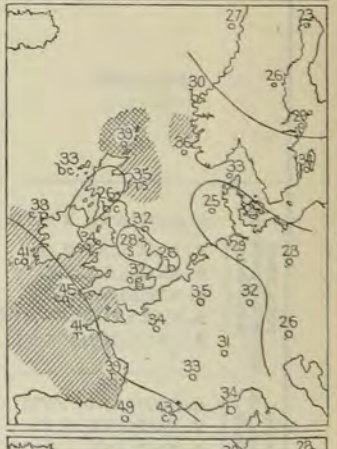
Weather fair in Ireland and the west of Scotland, but cloudy elsewhere, with snow in many parts of Great Britain, and rain in France. Some improvement taking place over England later. Lunar halos seen in many places at night.

Temperature fallen in our Islands and the west of France, but risen elsewhere; readings over the United Kingdom ranging from 45° at Scilly to 22° at Loughborough. Sharp frost occuring at night in most places.

Wind strong from West or North-West on our southern coasts, but variable over the north of England, and strong from East or South-East over Scotland and the eastern shores of the North Sea.

Sea high off the north of Scotland and also at Scilly, and rough or rather so in most localities.

Barometer falling at all but our northern stations. Pressure relatively high over the Gulf of Bothnia and Spain, with a large area of low readings over our Islands, and a definite depression off the north-east of England. Rise taking place generally later.



Friday, January 7.

Weather fine in the north of Ireland and south of France, but cloudy elsewhere, with fog in the east of England, and showers on our extreme south-west coasts. Cold showers falling later in nearly all parts of the Kingdom.

Temperature risen a little in the north, but fallen elsewhere; readings ranging from 45° at Scilly to 24° at York. Frost occurring in most places at night.

Wind fresh from North-West in Ireland and from West over the English Channel and France, but Southerly or South-Easterly on our east coasts, Easterly in the north, with a gale at Wick.

Sea very high at Wick, rough off the north of Scotland generally, and rather rough on our south-west coasts.

Barometer rising in the north and east of our Islands, but falling in most other localities. Pressure still high over the Gulf of Bothnia and Spain, with a large area of low readings over our Islands, and small depression over our west coasts. Rise taking place in west later.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

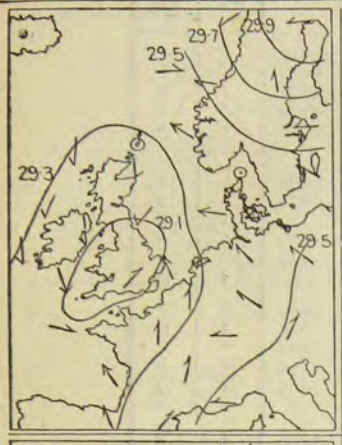
Weather

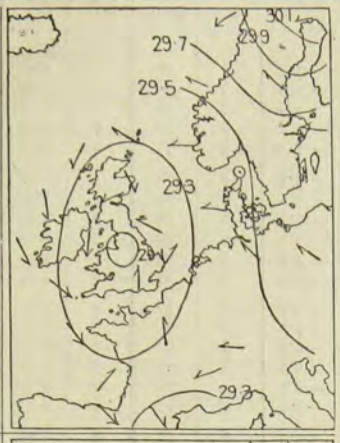
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Saturday, January 8.

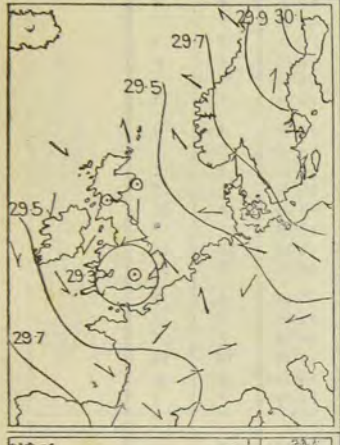
Weather fine in Germany, Denmark, Ireland, and the north-west of France, but cloudy elsewhere, with snow in some parts of Great Britain, and thunderstorms at Prawle Point.

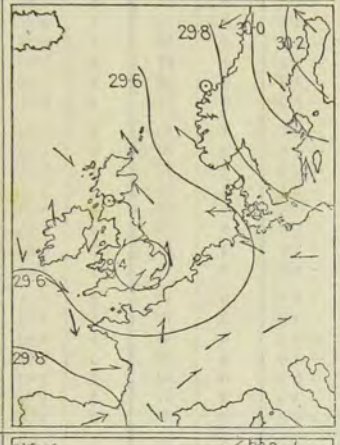
Temperature fallen a little over the western parts of our Islands and France, but risen in most other localities; readings over the United Kingdom ranging from 41° at Scilly to 29° at Wick. Frost occurring in many places at night.

Wind Northerly on our western and northern coasts, and Westerly in the Channel, but South-Easterly or Southerly over France, the Netherlands, and the east of England, and Easterly in Scandinavia and Denmark. Moderate in force in most places.

Sea rough at Scilly, and rather rough in the Bay of Biscay, but moderate to smooth elsewhere.

Barometer rising at all but the western French stations. Readings highest in the north of Sweden and area of low pressure recently noticed over our Islands gradually filling up. Rise extending to France later.





Sunday, January 9.

Weather cloudy and showery in most places in morning, but afterwards improving somewhat in west and north.

Temperature changed somewhat irregularly; readings ranging from 44° at Scilly to 27° at Stornoway. Frost again occurring generally at night.

Wind North-Westerly on our west and south-west coasts, but South-Easterly over Scandinavia, the Netherlands, and the east of England; light or moderate in force generally. Subsequently backing to South or South-West in the north of Ireland.

Sea rough at Wick and rather rough at Sumburgh Head and Scilly, but moderate to smooth elsewhere.

Barometer rising generally. Pressure highest in the north of Sweden, but relatively high over Spain, with an area of low readings still lying over England. Rise continuing all day and low pressure system gradually filling up.

Monday, January 10.

Weather fair generally, but dull at our extreme western and many of the Continental stations. Snow falling in some parts of England. Rain setting in later on our extreme western coasts, with lunar halos in many places.

Temperature fallen generally; readings ranging from 45° at Scilly to 26° at Nairn and Donaghadee. Frost occurring at night in many parts of the Kingdom.

Wind moderate Southerly in Ireland and the north of Scotland, as well as in the Netherlands and north-east of France, and light Westerly over England, but moderate to strong from East or South-East in Scandinavia.

Sea moderate on our extreme north and north-west coasts, but slight or smooth elsewhere.

Barometer rising generally. Pressure highest over the Gulf of Bothnia with an area of low readings to the westward of our Islands. Brisk fall taking place on our west coasts later, and depression approaching Ireland.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 1 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head Ş	43	33	40·9	34·4	37·8	− 1·7	0	29	7	1·38	+0·50	*	*
	Stornoway Ş	46	25	40·4	29·4	35·1	− 3·9	0	48	6	0·90	−0·29	7	15
	Wick Ş	41	25	39·0	30·6	35·0	− 3·4	0	49	6	0·85	+0·32	*	*
	Lairg Ş	40	16	34·0	23·9	29·2	?−10·3	0	90	?	2·43	?	*	*
	Fort Augustus Ş	39	21	36·6	25·0	31·0	?− 7·4	0	77	2	0·62	?	*	*
1. SCOTLAND, E.	Nairn Ş	41	24	36·1	26·4	31·4	− 6·1	0	74	4	0·37	−0·10	*	*
	Aberdeen Ş	40	28	37·9	31·3	34·7	− 2·5	0	51	6	1·38	+0·78	4	8
	Braemar Ş	34	17	32·9	22·9	28·1	?−10·3	0	97	3	0·31	?	1	2
	Ochtertyre Ş	42	23	37·0	27·6	32·5	?− 5·7	0	67	5	0·96	?	*	*
	Leith Ş	41	27	36·7	29·3	33·2	− 4·3	0	62	7	0·32	−0·13	*	*
	Marchmont Ş	37	20	33·4	22·9	28·4	?−10·0	0	95	7	1·28	?	5	10
2. ENGLAND, N.E.	Alnwick Castle	38	22	35·3	26·0	30·8	− 6·5	0	78	7	0·86	+0·30	*	*
	Durham	37	14	34·5	24·0	29·5	− 7·7	0	88	7	1·01	+0·48	5	10
	Shields	40	27	36·6	29·0	33·0	− 5·4	0	63	7	0·98	+0·51	*	*
	Scarborough ℳ	40	26	37·1	31·0	34·2	− 3·5	0	55	7	1·77	+1·28	*	*
	York	38	21	35·6	26·9	31·4	− 6·7	0	74	7	1·17	+0·70	4	8
	Spurn Head	40	25	36·9	29·1	33·2	− 5·5	0	62	4	0·50	?	*	*
3. ENGLAND, E.	Hillington ℳ	38	21	34·8	25·8	30·5	− 6·6	0	81	5	1·22	+0·75	4	8
	Yarmouth	38	23	35·3	28·4	32·0	− 6·4	0	70	5	0·55	+0·02	*	*
	Geldeston	39	22	36·0	27·6	32·0	− 6·3	0	70	6	0·92	+0·51	2	4
	Cambridge	38	24	35·6	27·9	31·9	− 5·5	0	71	6	0·63	+0·25	5	9
	Rothamsted	37	14	35·3	25·6	30·6	− 6·6	0	80	7	0·72	+0·11	*	*
	Ingatestone	38	23	35·3	28·2	31·9	− 7·2	0	71	6	0·61	+0·20	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	36	16	33·6	24·9	29·5	− 8·8	0	88	6	1·43	+0·98	3	6
	Loughborough	38	21	34·7	26·4	30·7	− 6·5	0	79	6	1·18	+0·69	*	*
	Leicester	39	20	36·0	25·5	31·0	− 5·9	0	77	6	1·61	+1·15	1	2
	Cheadle ℳ	36	24	33·4	26·0	29·8	− 7·1	0	85	5	1·25	+0·61	*	*
	Churchstoke ℳ	39	21	35·6	26·2	31·1	− 6·8	0	76	6	0·62	−0·06	14	26
	Hereford ℳ	41	21	38·2	26·8	32·7	− 5·5	0	65	6	0·98	+0·38	*	*
	Cirencester	44	18	36·1	23·6	30·1	− 8·1	0	83	7	0·89	+0·17	18	33
	Oxford	39	25	36·0	28·0	32·2	− 6·5	0	69	7	0·82	+0·30	13	24
5. ENGLAND, S.	London†	40	27	37·6	29·4	33·7	− 5·0	0	58	5	0·41	−0·08	4	7
	Strathfield Turgiss ℳ	39	21	36·6	26·1	31·6	− 6·8	0	73	5	0·66	+0·09	*	*
	Dungeness	42	26	40·9	30·9	36·1	− 4·1	0	41	5	0·86	+0·21	*	*
	Hastings (St. Leonard's)	43	23	40·7	29·4	35·3	− 4·6	0	47	6	1·07	+0·41	19	34
	Southampton	41	27	37·8	28·8	33·5	− 5·7	0	60	4	0·88	+0·11	13	23
	Hurst Castle	44	28	41·9	31·1	36·7	− 4·0	0	37	5	1·07	+0·39	*	*
	Stowell ℳ	41	25	38·1	29·0	33·7	− 6·2	0	58	6	0·98	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	40	23	36·5	26·0	31·5	− 8·0	0	74	3	1·66	−0·32	*	*
	Glasgow	35	26	34·2	28·4	31·4	− 7·0	0	74	4	0·37	−0·64	4	8
	Ardrossan	42	24	36·1	28·0	32·2	− 8·0	0	69	5	0·93	−0·07	*	*
	Glenlee Ş	37	10	33·1	17·7	25·7	?−12·1	0	114	4	?1·56	?	*	*
	Douglas (Isle of Man)	41	26	38·5	29·5	34·2	− 6·3	0	55	4	1·26	+0·25	13	25
7. ENGLAND, N.W.	Newton Reigny (Penrith)	36	14	33·7	21·6	27·9	− 9·3	0	99	6	0·94	+0·09	8	16
	Barrow-in-Furness	38	27	34·6	29·1	32·0	− 8·2	0	70	5	0·55	−0·32	*	*
	Stonyhurst	36	22	33·6	25·4	29·7	− 8·6	0	86	6	1·11	+0·14	3	6
	Blackpool ℳ	40	20	36·3	24·0	30·4	−10·0	0	81	6	0·60	−0·10	7	13
	Manchester	37	24	34·0	27·0	30·6	− 8·1	0	80	5	0·64	−0·13	*	*
	Liverpool Obsy (Bidston)	39	27	37·0	30·1	33·7	− 6·0	0	58	7	0·82	+0·29	*	*
	Llandudno ℳ	41	31	38·7	32·5	35·7	− 5·7	0	44	6	0·82	+0·14	7	13
	Holyhead	45	33	40·7	34·1	37·5	− 5·2	0	32	6	1·49	+0·68	*	*
8. ENGLAND, S.W.	Llandovery	41	26	37·4	27·6	32·7	− 7·2	0	65	5	1·24	−0·01	*	*
	Pembroke	48	30	42·7	34·9	39·0	− 3·6	2	27	7	1·46	+0·56	9	17
	Arlington (N. Devon)	47	27	39·9	29·7	35·0	− 5·3	0	49	6	1·96	+0·37	*	*
	Cullompton ℳ	45	24	40·4	28·7	34·8	− 5·4	0	50	6	1·37	+0·58	12	21
	Falmouth	47	33	44·1	35·6	40·0	− 3·7	6	25	7	1·38	+0·10	21	37
	Plymouth	50	28	43·2	31·7	37·7	− 4·7	3	39	7	1·48	+0·58	22	39
	Prawle Point	47	32	43·9	33·0	38·7	− 3·5	5	35	7	0·52	?	*	*
9. IRELAND, N.	Malin Head	47	31	40·6	33·3	37·1	− 3·3	0	34	7	0·59	?	*	*
	Londonderry	41	22	36·8	25·6	31·4	− 9·5	0	74	5	0·97	+0·07	*	*
	Mullaghmore	50	29	43·4	31·3	37·6	− 4·7	4	40	6	1·50	−0·65	*	*
	Belmullet	47	32	44·0	34·9	39·6	− 4·7	6	27	7	1·75	?	*	*
	Markree Castle	41	22	38·8	27·1	33·2	− 8·7	0	62	7	1·39	+0·60	17	33
	Brookeborough	39	15	35·4	20·8	28·4	−11·7	0	95	3	1·47	?	*	*
	Armagh	42	12	34·3	23·9	29·3	−10·3	0	89	4	0·73	+0·06	5	10
	Donaghadee	48	25	38·7	27·7	33·4	− 7·4	0	60	6	0·94	+0·28	*	*
	Edgeworthstown	49	21	36·9	25·6	31·5	− 7·7	0	74	2	1·19	+0·52	*	*
10. IRELAND, S.	Dublin	45	23	37·3	29·7	33·7	− 7·1	0	58	6	0·85	+0·35	14	26
	Parsonstown	50	25	39·9	29·6	35·0	− 5·0	0	49	5	0·75	+0·05	18	34
	Kilkenny	49	23	39·3	28·9	34·3	− 5·3	0	54	3	0·94	+0·15	*	*
	Waterford	49	22	40·2	29·2	34·9	− 6·6	0	50	4	1·93	+0·89	*	*
	Roche's Point	48	29	42·7	33·4	38·2	− 4·8	2	32	4	1·67	+0·44	*	*
	Valencia	52	34	46·6	36·3	41·7	− 3·6	13	25	7	1·90	+0·45	17	31
	Killarney	50	27	44·7	32·4	38·8	− 4·6	8	37	6	2·59	?	*	*
	Foynes	51	30	43·0	33·8	38·6	− 3·1	3	31	5	1·54	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	51	37	46·1	38·4	42·4	− 3·8	18	10	6	1·19	+0·29	*	*
	Jersey (Noirmont)	48	32	45·1	36·0	40·7	− 1·7	9	24	7	1·30	+0·52	30	52

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked Ş with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

Note.—It will be observed that an addition has been made to the above list of reports from several stations situated over the inland I

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY J. D. POTTER, 31, POULTRY, AND 11, KING STREET, TOWER HILL, AND E. STANFORD, 55, CHARING CROSS.

VOL. IV. No. 2.] *New Series.* WEEK ENDING MONDAY, 17TH JANUARY, 1887. [*Price 4d.* [*Annual subscription post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 8.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	46	24	41·2	33·7	37·6	1 below.	0	− 5	31	− 5	0	−10	90*	+19
	1. SCOTLAND, EAST	45	14	38·9	27·4	33·4	3 below.	0	− 6	60	+15	0	−10	134	+49
	2. ENGLAND, N.E.	42	18	37·2	28·1	32·9	5 below.	0	− 5	64	+22	0	−11	134	+61
	3. ENGLAND, EAST	42	11	35·3	26·5	31·1	7 below.	0	− 6	76	+30	0	−14	150	+67
	4. MIDLAND COUNTIES	48	12	36·1	24·4	30·5	7 below.	0	− 8	81	+35	0	−19	159	+79
	5. ENGLAND, SOUTH	46	13	37·3	28·6	33·1	6 below.	0	− 9	62	+25	0	−20	115	+52
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	49	20	40·6	30·8	35·8	3 below.	0	− 8	43	+ 7	0	−17	120	+56
	7. ENGLAND, N.W.	52	18	38·7	28·7	33·9	6 below.	0	− 7	57	+20	0	−17	126	+64
	8. ENGLAND, S.W.	52	21	42·3	31·5	37·1	5 below.	1	−14	38	+16	1	−33	74	+38
	9. IRELAND NORTH	49	21	42·4	31·4	37·1	4 below.	1	−10	39	+ 9	1	−26	99	+50
	10. IRELAND, SOUTH	54	24	45·3	32·5	39·1	3 below.	9	−10	37	+15	9	−30	73	+37
	— CHANNEL ISLANDS	52	25	43·9	36·9	40·5	4 below.	5	−14	20	+ 7	15	−27	41	+22

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 8.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	4	7	1 less.	9	− 1	1·9	+ 0·2	6	12	13	+ 1	14	+ 1
	1. SCOTLAND, EAST	4	7	0 (average).	9	+ 3	1·5	+ 0·3	8	16	11	−10	11	−11
	2. ENGLAND, N.E.	4	3	2 less.	11	+ 4	1·4	+ 0·4	10	18	15	+ 1	14	+ 1
	3. ENGLAND, EAST	3	3	1 less.	9	+ 1	1·1	+ 0·2	5	8	9	−11	8	−10
	4. MIDLAND COUNTIES	3	4	2 less.	9	+ 2	1·5	+ 0·4	3	6	13	− 4	12	− 4
	5. ENGLAND, SOUTH	3	5	2 less.	8	+ 1	1·4	0·0	2	3	14	− 4	12	− 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	4	9	5 less.	8	0	2·1	0·0	10	19	19	+ 6	18	+ 5
	7. ENGLAND, N.W.	3	5	4 less.	9	+ 2	1·4	− 0·2	5	10	11	− 4	10	− 4
	8. ENGLAND, S.W.	4	7	3 less.	10	+ 2	2·0	− 0·1	7	11	23	0	20	− 1
	9. IRELAND, NORTH	4	4	3 less.	9	0	1·6	+ 0·1	13	24	24	+ 6	22	+ 4
	10. IRELAND, SOUTH	4	6	4 less.	9	+ 1	2·1	+ 0·2	15	27	31	+ 6	28	+ 5
	— CHANNEL ISLANDS	5	6	3 less.	12	+ 3	1·9	+ 0·2	12	20	42	+11	36	+ 9

General Remarks.

Weather has been very dull and gloomy generally, with a good deal of mist and fog. Rain, sleet, or snow fell during the earlier part of the period and again as the week drew towards its close.

Temperature has continued below the mean in all districts; in "Scotland, N." the deficit has been only 1°, and in the east and west of Scotland and in the south of Ireland 3°, but over the greater part of England there has been a deficit of 6° or 7°. At Bawtry the average temperature for the week did not exceed 28°·4 (10° below the mean), and at Rothamsted 28°·7 (9° below the mean). The highest of the maxima, which were registered on irregular dates, ranged from 42° in "England, N.E." and "England, E." to 54° in "Ireland, S." The lowest of the minima, which were recorded at most stations on the 17th, varied from 11° in "England, E.", 12° in the "Midland Counties", 13° in "England, S.", and 14° in "Scotland, E." to 24° in "Scotland, N." and "Ireland, S.", and 25° in the "Channel Islands".

Rainfall has been rather less than the mean in nearly all districts.

Bright sunshine has been very deficient; the percentages of the possible amount of duration in the "Wheat-producing" districts ranged from 3 in "England, S." to 18 in "England, N.E.", and in the "Grazing" districts from 10 in "England, N.W." to 27 in "Ireland, S."

Depressions observed.—As the week commenced a deep depression was moving north-north-eastwards over our north-western coasts, while some subsidiary disturbances at the same time advanced over England. As these disappeared from our area, however, the barometer rose quickly and the distribution of pressure over our Islands became anti-cyclonic, and continued so till the period drew towards its close, when another deep depression skirted our north-western coasts and subsidiary disturbances again advanced more directly over us. Strong Southerly winds or gales were experienced on our coasts at the opening of the period, but these soon subsided, and moderate or light South-Westerly breezes set in in the north-west and north, and Easterly winds (generally light or moderate) in the south and east, but on the approach of further disturbances from the Atlantic, strong Southerly winds or gales became general in nearly all parts of the Kingdom.

* The corresponding value in last week's Report should read "59."

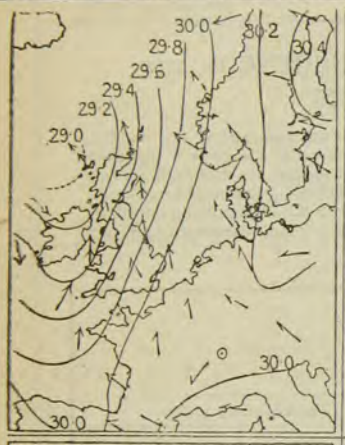
A 50144. 350.—1/87. Wt. 44. E. & S.

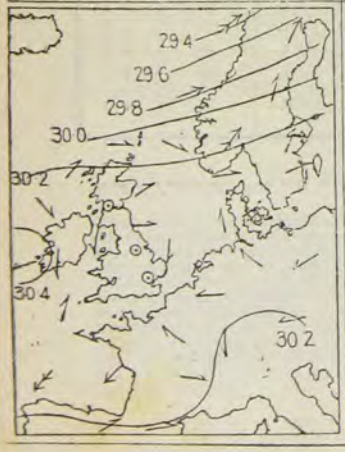
II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

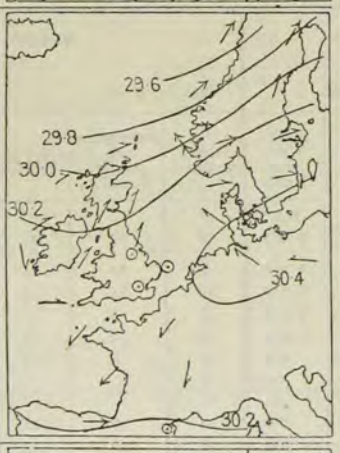
PRESSURE AND WIND.

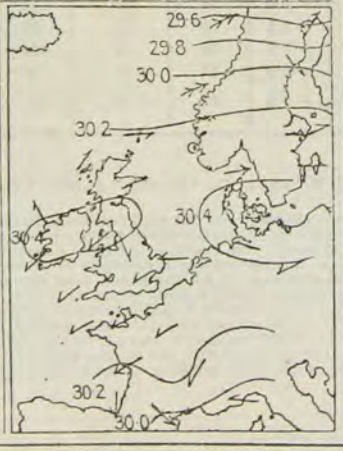
8 a.m.





6 p.m.





Weather

During the 24 hours succeeding

8 a.m. on the dates given.

Tuesday, January 11.

Weather fine in the south of France, but dull elsewhere, with rain in many parts of the United Kingdom. Some improvement taking place in west later.

Temperature risen generally; readings over our Islands ranging from 51° at Scilly to 35° at York. Frost occurring over the inland parts of our western and northern districts at night.

Wind Westerly or North-Westerly in Ireland, but Southerly or South-Easterly elsewhere; strong to a gale in force over our Islands and the west of France. Subsequently veering to North-West in the west of England.

Sea very high off the north of Scotland, and rough or rather so on nearly all parts of our coasts.

Barometer falling at all but the Continental stations. Pressure highest over the Gulf of Bothnia, but relatively high in Spain, with the centre of a deep depression off the west of Scotland. Depression subsequently moving northwards, and barometer rising in west and north.

Wednesday, January 12.

Weather fine in the west and north of our Islands, but dull at our south-eastern and the Continental stations, with rain in the extreme south-east of England. Improvement in weather extending later to all parts of the Kingdom.

Temperature fallen in our Islands, but risen at several of the Continental stations; readings over the United Kingdom ranging from 46° at Scilly to 32° at Donaghadee and York and 30° at Parsonstown. Hard frost occurring over Central England at night, the minimum at Loughborough being only 17°.

Wind moderate South-Westerly in Scotland and strong South-Easterly on the eastern shores of the North Sea, but moderate Northerly in the south of our Islands and north of France.

Sea rather rough at the mouth of the Channel, but moderate to smooth elsewhere.

Barometer rising at all but the Scandinavian stations. An anticyclonic system lying over Ireland and England, and another over the Baltic and North Germany, with a large area of low pressure off the west of Norway. High pressure systems subsequently joining, and forming one large area extending from the Baltic to the south-west of our Islands.

Thursday, January 13.

Weather rainy on our extreme north and north-west coasts and foggy over central and south-eastern England, but fair or fine elsewhere. Rain falling later at several of our western and northern stations.

Temperature risen several degrees in Ireland and Scotland, but fallen elsewhere; readings over our Islands ranging from 48° at Valencia to 17° at Loughborough. Sharp frost again occurring in many places at night.

Wind light Easterly in Germany, and moderate Northerly or North-Easterly in the south of our Islands and north of France, but Southerly or South-Westerly elsewhere; strong in force on our extreme western and northern coasts. Subsequently shifting to North in the west of Ireland.

Sea rough or rather so on many parts of our western and northern coasts.

Barometer falling a little in Ireland, Scotland, and the south of France, but rising elsewhere. Anticyclone extending from the Baltic to the south-west of England, with a depression off the north-west of Scotland. Depression subsequently travelling away north-eastwards, and barometer rising again in west and north.

Friday, January 14.

Weather fine in the west and north, but cloudy elsewhere, with rain in the south-west of England and fog at our central and eastern stations. Bright aurora seen at night in the north of Scotland.

Temperature fallen in most places; readings over our Islands ranging from 45° at Scilly to 29° in London and at Oxford and 27° at Parsonstown. Frost occuring generally at night.

Wind moderate Westerly in Scotland and strong to gale from South-West in Scandinavia, but light North-Easterly in the south of our Islands and west of France.

Sea smooth generally, but a heavy ground sea reported at Mullaghmore and Scilly.

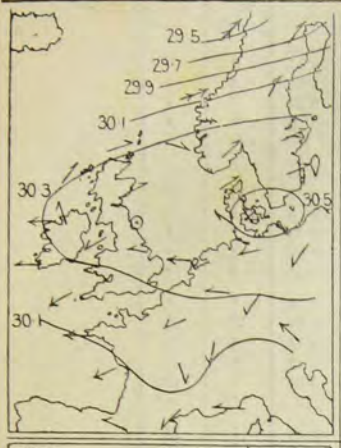
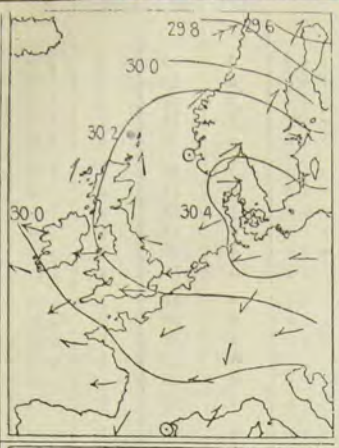
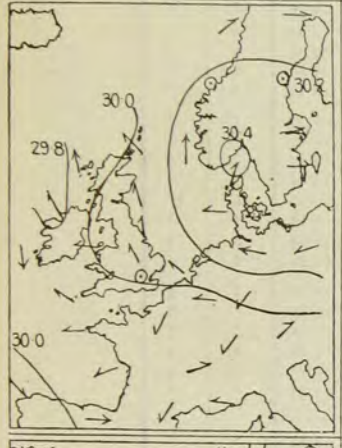
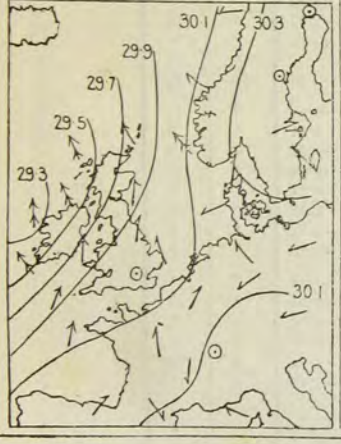
Barometer rising in our Islands, but falling at most of the Continental stations. Anticyclonic systems lying respectively over the Baltic, Denmark, and North Germany, and over England and Ireland, with a rather deep depression over the north of Norway. Rise extending later to all but the French stations.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, January 15.** *Weather* fine in many parts of Scandinavia, Scotland, and Ireland, but dull elsewhere, with mist or fog locally. *Temperature* fallen generally; readings over our Islands ranging from 42° at Stornoway, Valencia, and Scilly, to 25° at Aberdeen. Sharp frost at night in many places. *Wind* South-Westerly in Scandinavia and Scotland, with gales at Bodö and Christiansund, but Easterly in most other parts of western Europe. Easterly winds subsequently blowing strongly on our southern coasts. *Sea* rough at the mouth of the Channel, but moderate to smooth elsewhere. *Barometer* falling at our western, southern, and the French stations, but rising elsewhere. Anticyclone extending from the Baltic and North Germany to the east of England, with a depression to the northward of Norway and relatively low pressures over Spain and the south of France. Fall taking place generally later.	
		**Sunday, January 16.** *Weather* fine in Denmark, Germany, and the north of Sweden, but cloudy elsewhere, with mist at some of the English stations, and rain in the south of France. Slight snow falling later in many parts of Great Britain. *Temperature* falling generally; readings over our Islands ranging from 43° at Valencia to 27° at Liverpool and 26° at Jersey. Hard frost occurring over England at night, the lowest readings being 14° at Loughborough, 17° at Oxford, and 18° at Cambridge. *Wind* Southerly over the greater part of Ireland and Scotland, and strong in force on our extreme north and north-west coasts. Light or moderate from East or South-East in most other localities. Subsequently shifting to North in the south of Ireland. *Sea* rather rough on our extreme north-west coasts, but moderate to smooth elsewhere. *Barometer* falling at all stations excepting Valencia where slight rise reported. Pressure highest over Denmark and the south of Scandinavia, with a depression to the north-westward of our Islands and a subsidiary disturbance off the south of Ireland. No important change later.	
		**Monday, January 17.** *Weather* rainy in Ireland and the west of Scotland, and dull on the west coasts of England and France, but fair or fine elsewhere. Snow or sleet falling later in many parts of England. *Temperature* risen several degrees on our west and south-west coasts, but fallen elsewhere; readings over our Islands ranging from 49° at Valencia to 15° at Loughborough. Brisk rise taking place over England later. *Wind* light and variable over France and the South-East of England, but Southerly or South-Easterly elsewhere, with fresh to strong gales in Ireland and Scotland. Subsequently veering to South-West or West in Ireland and moderating. *Sea* high or rough on all our western and northern coasts. *Barometer* rising at most of the Continental stations, but falling in our Islands—quickly in the west and north. Pressure highest in Sweden, but relatively high in Portugal, with a deep depression off the west of Ireland. Depression subsequently moving northwards, but subsidiary disturbances appearing over our western coasts.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 5 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	45	34	42·7	37·0	40·0	+ 0·8	2	19	6	0·90	+0·05	*	*
	Stornoway	46	33	43·3	34·4	39·0	+ 0·1	4	29	5	1·62	+0·44	6	12
	Wick	43	32	40·9	33·7	37·4	− 0·8	0	32	2	0·21	−0·26	*	*
	Lairg	42	24	37·6	29·9	33·9	− 2·9	0	57	1	0·11	−0·69	*	*
	Fort Augustus ℳ S	45	30	41·4	33·7	37·7	− 0·1	0	30	4	0·74	?	*	*
1. SCOTLAND, E.	Nairn	45	22	41·4	30·0	35·9	− 1·3	0	43	4	0·09	−0·38	*	*
	Aberdeen	42	24	38·7	28·9	34·0	− 3·2	0	56	4	1·05	+0·52	13	26
	Braemar	39	14	35·8	25·0	30·6	− 3·0	0	80	3	1·12	+0·45	2	4
	Ochtertyre ℳ S	44	20	38·8	26·0	32·7	− 4·0	0	65	4	1·60	+0·39	*	*
	Leith	44	23	40·6	29·6	35·3	− 2·1	0	47	3	0·12	−0·33	*	*
	Marchmont ℳ	44	19	37·8	25·0	31·7	− 4·6	0	72	4	0·20	−0·45	9	17
2. ENGLAND, N.E.	Alnwick Castle	40	24	37 3	29·1	33·4	− 3·8	0	60	4	0·47	−0·02	*	*
	Durham	39	18	35·6	25·3	30·7	− 6·5	0	79	5	0·25	−0·24	12	23
	Shields	42	23	38·7	29·9	34·5	− 3·7	0	53	4	0·27	−0·13	*	*
	Scarborough ℳ	42	26	38·5	30·7	34·8	− 2·9	0	50	3	0·22	−0·20	*	*
	York	40	18	36·0	24·3	30·4	− 7·5	0	81	4	0·25	−0·18	7	13
	Spurn Head	41	25	37·3	29·1	33·4	− 5·3	0	60	4	0·23	?	*	*
3. ENGLAND, E.	Hillington ℳ	38	20	34·9	25·0	30·2	− 6·5	0	83	3	0·51	+0·09	7	13
	Yarmouth	42	26	36·0	29·9	33·1	− 5·1	0	62	3	0·27	−0·21	*	*
	Geldeston	42	27	36·5	27·9	32·4	− 5·7	0	67	3	0·35	−0·01	4	7
	Cambridge	38	18	34·9	26·3	30·8	− 6·5	0	78	2	0·38	+0·03	3	5
	Rothamsted	39	11	34·8	22·2	28·7	− 8·5	0	93	4	0·32	−0·30	*	*
	Ingatestone	38	19	34·4	27·9	31·3	− 6·5	0	75	3	0·22	−0·18	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	37	14	34·3	21·9	28·4	− 9·8	0	95	3	0·20	−0·23	2	4
	Loughborough	44	14	35·7	23·0	29·6	− 7·6	0	87	3	0·38	−0·10	*	*
	Leicester	41	14	35·8	23·9	30·1	− 6·9	0	83	3	0·27	−0·18	3	5
	Cheadle ℳ	39	16	35·5	24·5	30·2	− 6·4	0	83	4	0·52	−0·10	*	*
	Churchstoke ℳ	44	22	37·3	26·1	31·9	− 6·0	0	71	3	0·40	−0·25	6	11
	Hereford ℳ	48	20	37·7	26·0	32·1	− 6·1	0	69	4	0·43	−0·18	*	*
	Cirencester	42	12	37·9	23·7	31·1	− 7·1	0	76	3	0·38	−0·39	2	4
	Oxford	40	17	34·3	25·9	30·3	− 8·4	0	82	2	0·27	−0·25	2	4
5. ENGLAND, S.	London†	41	20	36·6	29·4	33·1	− 5·5	0	62	3	0·12	−0·38	1	2
	Strathfield Turgiss ℳ	40	13	35·0	25·0	30·2	− 8·0	0	83	2	0·14	−0·45	*	*
	Dungeness	43	21	38·3	29·4	34·0	− 5·9	0	56	3	0·74	+0·13	*	*
	Hastings (St. Leonard's)	43	22	37·6	29·6	33·8	− 5·7	0	57	3	0·94	+0·29	4	9
	Southampton	44	20	36·5	28·6	32·7	− 6·2	0	65	2	0·69	−0·11	2	4
	Hurst Castle	45	25	40·0	29·7	35·1	− 5·4	0	48	2	0·44	−0·26	*	*
	Stowell ℳ	46	24	37·3	28·5	33·1	− 6·8	0	62	3	0·21	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	49	30	43·0	34·0	38·7	− 0·5	3	30	5	1·38	−0·53	*	*
	Glasgow	41	25	38·4	30·3	34·5	− 3·7	0	53	3	0·34	−0·67	6	12
	Ardrossan	45	26	40·6	31·9	36·4	− 2·9	0	39	3	0·56	−0·46	*	*
	Glenlee S	42	20	38·4	25·9	32·2	− 4·7	0	69	3	1·39	?	*	*
	Douglas (Isle of Man)	47	28	42·5	31·8	37·4	− 3·0	1	38	4	0·75	−0·38	14	26
7. ENGLAND, N.W.	Newton Reigny (Penrith)	40	18	37·0	23·8	30·7	− 6·5	0	79	4	0·46	−0·41	6	11
	Barrow-in-Furness	42	27	37·7	29·1	33·6	− 6·5	0	59	3	0·64	−0·26	*	*
	Stonyhurst	41	19	36·3	27·5	32·1	− 6·1	0	69	3	0·32	−0·62	6	11
	Blackpool ℳ	42	22	37·2	25·6	31·6	− 8·6	0	73	3	0·35	−0·84	8	15
	Manchester	42	21	37·9	28·5	33·4	− 5·2	0	60	3	0·36	−0·39	*	*
	Liverpool Obsy (Bidston)	43	25	37·9	28·9	33·6	− 6·0	0	59	3	0·51	0·00	*	*
	Llandudno ℳ	52	27	42·1	31·2	36·9	− 4·5	0	40	3	0·39	−0·26	1	2
	Holyhead	48	29	43·6	34·6	39·3	− 3·1	4	28	3	0·78	−0·01	*	*
8. ENGLAND, S.W.	Llandovery	51	21	39·4	27·1	33·5	− 6·2	0	60	3	0·56	−0·69	*	*
	Pembroke	49	31	44·6	36·3	40·6	− 2·0	7	23	5	0·74	−0·16	9	16
	Arlington (N. Devon)	51	25	40·6	28·4	34·7	− 5·5	0	51	4	0·84	−0·13	*	*
	Cullompton ℳ	49	25	40·3	29·0	34·9	− 6·1	0	50	4	0·73	−0·06	4	7
	Falmouth	52	33	44·1	35·9	40·2	− 3·1	6	24	5	0·70	−0·60	6	10
	Plymouth	51	29	42·7	31·3	37·2	− 5·2	2	39	3	0·90	−0·02	7	12
	Prawle Point	50	30	44·3	32·7	38·7	− 3·5	6	36	3	0·31	?	*	*
9. IRELAND, N.	Malin Head	44	31	42·0	34·0	38·2	− 2·0	0	27	3	0·22	?	*	*
	Londonderry	49	25	41·7	31·8	37·0	− 3·9	0	35	4	0·52	−0·39	*	*
	Mullaghmore	49	31	45·4	34·6	40·2	− 2·4	10	30	4	0·22	−0·59	*	*
	Belmullet	48	33	44·6	35·1	40·0	− 4·7	7	27	6	0·69	?	*	*
	Markree Castle	48	21	41·2	28·5	35·1	− 7·1	0	48	6	0·27	−0·50	13	24
	Brookeborough	47	24	41·4	29·6	35·7	− 4·5	0	44	3	0·68	?	*	*
	Armagh	49	25	42·4	30·7	36·8	− 2·8	1	42	3	0·42	−0·25	13	24
	Donaghadee	48	26	42·4	31·0	36·9	− 3·7	1	40	5	0·64	−0·04	*	*
	Edgeworthstown	46	23	40·3	27·4	34·1	− 5·1	0	55	2	0·25	−0·40	*	*
10. IRELAND, S.	Dublin	51	32	44·0	33·8	39·1	− 1·5	6	32	4	0·12	−0·36	13	24
	Parsonstown	50	25	42·3	28·4	35·6	− 4·3	1	50	4	0·35	−0·35	11	20
	Kilkenny	50	24	44·4	28·4	36·7	− 2·7	7	51	2	0·45	−0·36	*	*
	Waterford	48	26	44·8	33·0	39·1	− 2·1	8	35	3	0·68	−0·40	*	*
	Roche's Point	50	32	47·3	37·9	41·8	− 1·0	15	26	4	0·79	−0·48	*	*
	Valencia	52	33	48·1	36·6	42·6	− 2·6	27	15	5	1·39	−0·13	21	38
	Killarney	54	27	46·7	30·7	39·0	− 4·3	13	45	5	0·78	?	*	*
	Foynes	53	29	44·8	33·1	39·2	− 2·3	8	35	4	0·30	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	52	37	47·3	40·4	44·0	− 2·2	21	4	7	0·79	−0·11	*	*
	Jersey (Noirmont)	45	25	49·4	33·4	37·0	− 5·2	0	35	3	0·35	−0·40	12	20

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY J. D. POTTER, 31, POULTRY, AND 11, KING STREET, TOWER HILL, AND E. STANFORD, 55, CHARING CROSS.

VOL. IV. No. 3.] *New Series.* WEEK ENDING MONDAY, 24TH JANUARY, 1887. [*Price 4d.* [*Annual subscription post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 12.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	50	30	45·9	36·3	41·3	3 above.	11	+ 6	24	−12	11	− 9	114	+ 9
	1. SCOTLAND, EAST	53	22	46·8	35·3	41·3	5 above.	13	+ 7	29	−15	13	− 8	163	+35
	2. ENGLAND, N.E.	50	19	44·3	34·8	39·7	2 above.	6	0	28	−13	6	−13	162	+47
	3. ENGLAND, EAST	51	18	42·8	33·0	38·1	0 (average).	2	− 5	33	−11	2	−18	183	+50
	4. MIDLAND COUNTIES	55	15	43·7	33·5	38·8	1 above.	5	− 4	32	−13	5	−23	191	+63
	5. ENGLAND, SOUTH	54	14	44·2	34·6	39·6	0 (average)	6	− 3	29	− 7	6	−23	144	+40
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	55	31	46·5	38·9	42·8	4 above.	19	+11	9	−26	19	− 9	129	+30
	7. ENGLAND, N.W.	52	27	44·9	37·4	41·3	2 above.	8	0	19	−15	8	−18	145	+48
	8. ENGLAND, S.W.	53	25	46·7	37·2	42·1	0 (average).	21	+ 5	13	− 8	22	−25	87	+25
	9. IRELAND, NORTH	54	30	48·3	38·4	43·6	3 above.	26	+14	10	−19	27	−13	109	+29
	10. IRELAND, SOUTH	55	30	49·8	39·3	44·7	3 above.	30	+11	8	−12	39	−19	81	+18
	— CHANNEL ISLANDS	52	32	46·9	40·0	43·6	1 below.	20	0	6	− 6	35	−24	47	+12

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 12.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	19	11 more.	15	0	3·8	+ 1·3	2	4	15	− 6	10	− 4
	1. SCOTLAND, EAST	3	4	3 less.	12	+ 3	1·9	+ 0·1	13	25	24	−11	16	− 8
	2. ENGLAND, N.E.	2	1	4 less.	13	+ 4	1·5	+ 0·1	10	18	25	+ 5	16	+ 3
	3. ENGLAND, EAST	2	2	2 less.	11	+ 1	1·3	− 0·1	13	23	22	− 4	13	− 3
	4. MIDLAND COUNTIES	3	3	3 less.	12	+ 3	1·8	+ 0·1	11	20	24	+ 1	14	0
	5. ENGLAND, SOUTH	2	3	3 less.	10	+ 1	1·7	− 0·2	6	11	20	− 3	12	− 2
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	5	11	1 more.	13	+ 2	3·2	+ 0·1	7	12	26	+ 4	16	+ 2
	7. ENGLAND, N.W.	3	5	3 less.	12	+ 2	1·9	− 0·5	9	16	20	− 3	12	− 2
	8. ENGLAND, S.W.	4	5	5 less.	14	+ 3	2·5	− 0·6	8	14	31	− 2	18	− 1
	9. IRELAND, NORTH	3	5	2 less.	12	− 2	2·1	− 0·2	5	9	29	− 3	18	− 1
	10. IRELAND, SOUTH	3	6	4 less.	12	0	2·7	− 0·2	6	11	37	− 2	22	− 2
	— CHANNEL ISLANDS	3	4	4 less.	15	+ 3	2·3	− 0·2	15	25	57	+13	32	+ 7

General Remarks.

Weather has been in a finer and drier condition generally than that reported for some weeks past. Cloudy or overcast skies have, however, been very prevalent, but excepting in the extreme north and north-west the amount of rainfall has been slight.

Temperature, which was rising briskly as the period commenced, has been above the mean in Ireland and Scotland, as well as over northern and central England, while in the east, south, and south-west of England the mean has been just equalled. In the "Channel Islands", however, it has continued a little below the mean. The highest of the maxima, which were registered in most places on the 19th, varied from 50° in "Scotland, N." and "England, N.E." to 55° in the "Midland Counties", "Scotland, W.", and "Ireland, S." The lowest of the minima were generally recorded at the opening of the period, when the thermometer stood as low as 14°, to 22° in the "Wheat-producing" districts and between 25° and 31° in the "Grazing" districts.

Rainfall has been more than the mean in the north and west of Scotland, but less in all other parts of the Kingdom.

Bright sunshine has continued very deficient, the percentages of the possible amount of duration ranging from 4 in "Scotland, N." and 9 in "Ireland, N." to 23 in "England, E." and 25 in the "Channel Islands".

Depressions observed.—During the 18th and 19th, some rather large depressions skirted our extreme western and north-western coasts, the barometer at the same time being highest over the continent. By the 20th, however, these had passed on to Scandinavia and an anticyclone moved slowly over France and the southern parts of our Islands from the westward. As the week drew towards its close the anticyclone had reached Germany and fresh depressions began to skirt our extreme western coasts. Moderate to strong winds from between South-West and West were prevalent over our Islands during the earlier part of the period, but as the anticyclone appeared they fell lighter and drew more to the Westward, while at the end of the period they backed to the Southward, and on our extreme western and northern coasts increased to a moderate to strong gale.

A 50189. 350.—1/87. Wt. 44. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

Weather

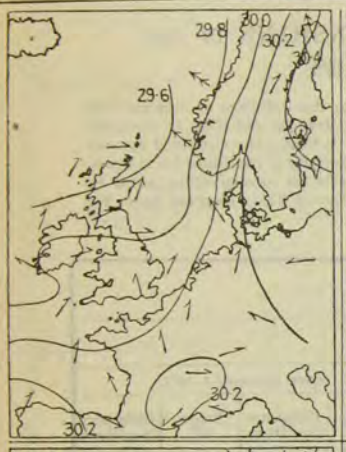
During the 24 hours succeeding

8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, January 18.

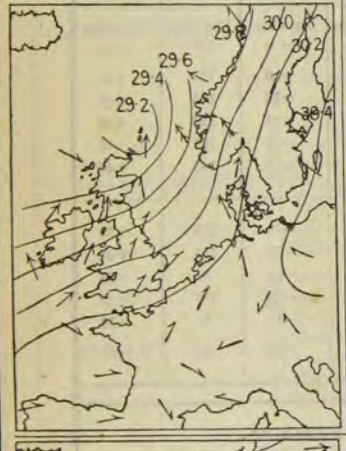
Weather fine over the northern parts of our Islands, but cloudy elsewhere, with fog over Central and Southern England, snow at Skudesnaes, Yarmouth, and Rochefort, and rain in the south of France. Rain falling later in most parts of the United Kingdom.

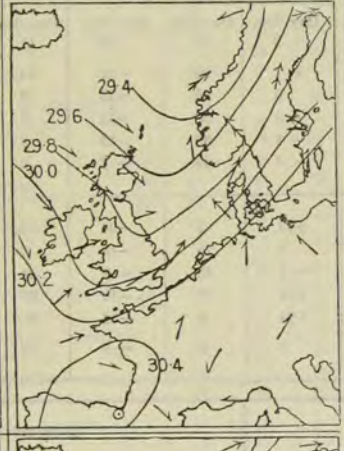
Temperature fallen a little in the west, but risen several degrees elsewhere; readings ranging from 50° at Scilly to 32° at Aberdeen and York.

Wind South-Easterly in the south of Ireland, the west of France and in Germany, as well as on the eastern shores of the North Sea, but Southerly or Westerly on our north and east coasts; strong to a gale in force in the west of Norway. Subsequently increasing from the Southward in Ireland.

Sea rather rough at the mouth of the Channel and also off the extreme north of Scotland.

Barometer rising in the west and north of our Islands and the south and east of France, but falling elsewhere. Areas of high pressure lying over Sweden and Portugal, with a large depression to the northward of Scotland and a smaller disturbance off the south of Ireland. New depression appearing off the west of Ireland later.





Wednesday, January 19.

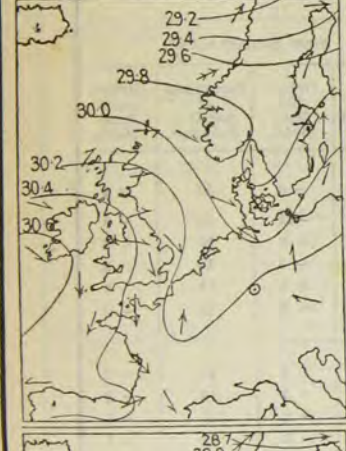
Weather fine in Germany and the east of England, but dull elsewhere, with rain at some of the Irish and Scotch stations. Rain falling later in most parts of the United Kingdom.

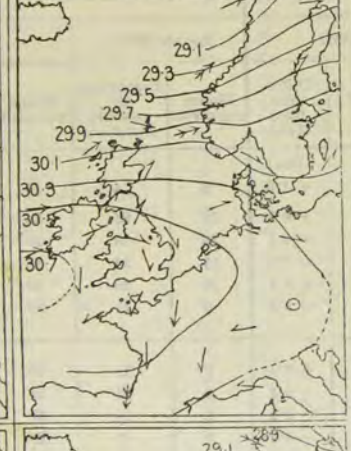
Temperature risen several degrees; readings ranging from 53° at Belmullet and Valencia to 42° at Loughborough and Yarmouth. Maximum in London (54°) higher than any recorded since 6th December.

Wind moderate Westerly in the north of Scotland and west of France, but South-Easterly on the eastern shores of the North Sea, and South-Westerly elsewhere; strong to a gale in the south of Norway. Subsequently veering to North-West on our western and northern coasts.

Sea rough on our western and extreme northern coasts.

Barometer rising in France, Germany, and the south of our Islands, but falling elsewhere. Areas of high pressure lying over the Baltic and the north of Spain, with a depression off the north of Scotland. Depression subsequently moving away north-eastwards, but "V-shaped" subsidiary disturbances appearing over Ireland and England.





Thursday, January 20.

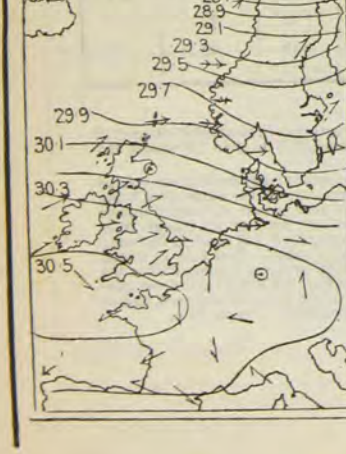
Weather fair generally, but rain falling in the north-east of France and snow at Stockholm. Rain setting in later at our extreme northern stations.

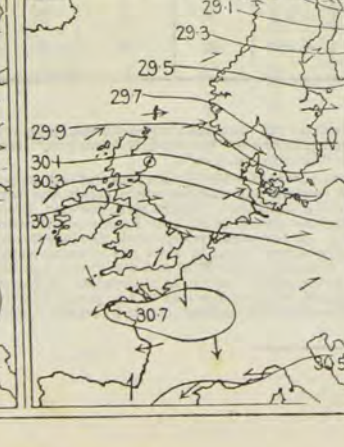
Temperature fallen several degrees in our Islands, but risen at the Continental stations; readings over the United Kingdom ranging from 46° at Scilly to 34° at Parsonstown and Cambridge. Frost occurring in the south-east of England at night.

Wind light South-Westerly on our extreme north and north-west coasts, but North-Westerly or Northerly elsewhere; fresh to strong in force over the Channel and Bay of Biscay. Subsequently increasing to strong breeze from west in the north of Scotland.

Sea rather rough on our south-western and extreme northern coasts.

Barometer falling in Sweden, Germany, and France, but rising elsewhere. Pressure highest off the south of Ireland, with a depression off the north-of Norway, and some "V-shaped" subsidiary disturbances over Denmark, the Netherlands, and the south of Scandinavia. New and deep depression approaching west of Norway in evening.





Friday, January 21.

Weather fair generally, but dull at some of our western and northern stations as well as in Scandinavia, with rain at Bodö and Skudesnaes. Showers falling later on our extreme northern coasts.

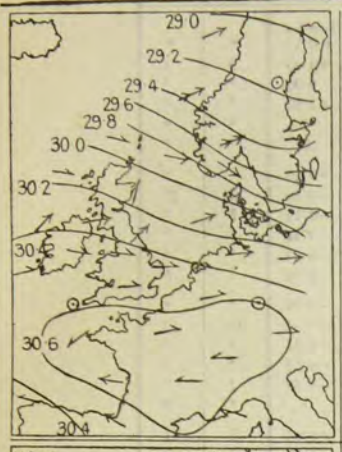
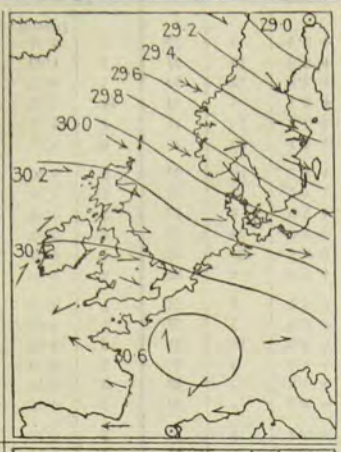
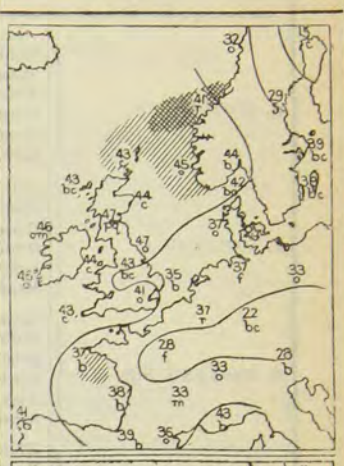
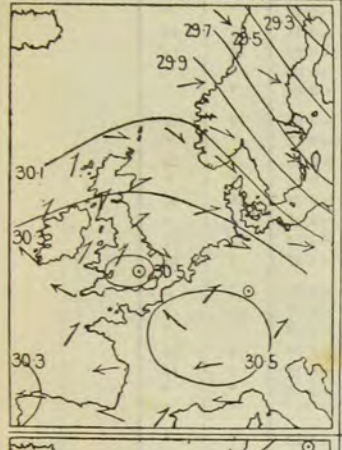
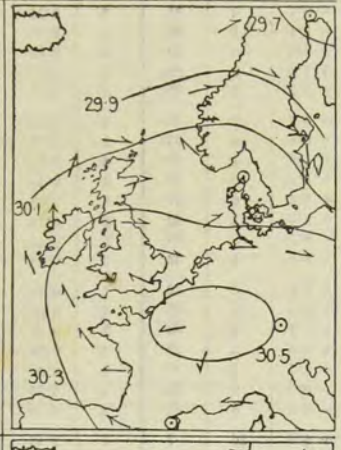
Temperature fallen at all but the French stations; readings over our Islands ranging from 47° at Valencia and 46° at Stornoway and Belmullet to 33° at Dungeness.

Wind Easterly or North-Easterly over Spain, the Bay of Biscay, and the west of France, but Westerly or South-Westerly elsewhere; strong to a gale in force in Scandinavia and the extreme north of Scotland.

Sea high off the west of Norway and rough on our extreme northern coasts, but moderate to smooth elsewhere.

Barometer falling in Ireland and Scandinavia, but rising elsewhere. Anticyclone with readings above 30·7 ins. lying over our south and south-west coasts, and deep depression with readings below 28·7 ins. off the north of Scandinavia. Slight fall taking place generally later.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, January 22.** *Weather* fair generally, but dull and unsettled at some of our western and northern stations, with snow at Hernösand and rain at Christiansund and Nairn. Showers falling later on several parts of our northern coasts. *Temperature* fallen a little in Germany, France, and the south-west of our Islands, but risen elsewhere; readings over the United Kingdom ranging from 47° at Leith, Ardrossan, and Belmullet to 35° at Yarmouth. *Wind* Easterly over France and Spain, but Westerly or South-Westerly elsewhere; strong to a gale in force at some of the Scandinavian stations. *Sea* rather rough on our extreme northern coasts, but moderate to smooth elsewhere. *Barometer* falling generally. Anticyclone with readings exceeding 30·6 ins. lying over France with lowest pressure, 29·0 ins. and less, over the north of Sweden. Rise taking place on our northern coasts later.	
		**Sunday, January 23.** *Weather* cloudy over our Islands and the greater part of France, with mist or fog locally but fine elsewhere. Rain falling later at our extreme western and northern stations. *Temperature* risen a few degrees in Germany, but fallen elsewhere; readings over our Islands ranging from 47° at Stornoway and 46° at Valencia to 37° at Yarmouth and 36° at Jersey. *Wind* moderate Easterly in France and South-Easterly on our south-west coasts, but South-Westerly in the north of our Islands and Westerly or North-Westerly on the eastern shores of the North Sea. *Sea* moderate to smooth generally. *Barometer* falling over France and the south of our Islands, but rising elsewhere. Large anticyclone lying over France and the south of England, with area of low pressure over the north of Sweden. Brisk fall taking place later on our western coasts.	
		Monday, January 24. *Weather* fine in Sweden, but dull elsewhere, with fog in France and mist in some parts of our Islands. Rain falling later on our extreme western coasts. *Temperature* risen a little in the west of our Islands, but fallen elsewhere; readings over our Islands ranging from 51° at Valencia to 35° at Liverpool. *Wind* Easterly in Germany and the east of France, but Southerly in our Islands, and South-Westerly or Westerly on the eastern shores of the North Sea; strong in force on our west coasts. Subsequently increasing to gale over Ireland and the west of Scotland. *Sea* rough on our south-west coasts and also at Stornoway, but moderate to smooth elsewhere. *Barometer* falling at all but the Swedish and Danish stations. Anticyclone lying over Germany, with a depression off the north-west of Norway and another approaching Ireland. Latter disturbance subsequently moving northwards along our western coasts.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 9 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
6. SCOTLAND, N.	Sumburgh Head	47	36	45·1	37·7	41·6	+ 2·4	9	19	7	0·47	−0·37	*	*
	Stornoway	50	30	47·3	35·7	41·7	+ 2·8	15	27	7	1·20	+0·03	2	4
	Wick	49	31	46·6	34·9	41·0	+ 2·8	13	30	5	0·45	0·00	*	*
	Lairg S	50	30	44·1	33·6	39·1	+ 2·1	6	33	?4	1·80	+1·02	*	*
	Glencarron S	49	34	45·8	37·9	42·0	+ 5·3	11	11	7	5·37	?	*	*
	Fort Augustus S	49	32	46·4	38·0	42·4	+ 4·7	20	11	6	1·91	?	*	*
1. SCOTLAND, E.	Nairn	51	22	48·6	34·9	42·0	+ 4·5	18	20	5	0·35	−0·10	*	*
	Aberdeen	50	30	47·6	34·9	41·5	+ 4·3	16	31	3	0·16	−0·38	13	25
	Braemar S	46	29	42·9	35·0	39·1	+ 5·5	3	26	3	0·49	−0·19	?	?
	Ochtertyre S	51	30	47·4	36·6	42·2	+ 5·6	24	15	3	0·84	−0·41	*	*
	Leith	53	27	49·7	36·3	43·3	+ 5·6	33	16	1	0·07	−0·38	*	*
	Marchmont S	48	25	44·7	33·9	39·5	+ 4·0	8	32	2	0·24	−0·41	?	?
2. ENGLAND, N.E.	Alnwick Castle	49	33	45·1	37·0	41·2	+ 4·0	9	21	1	0·10	−0·39	*	*
	Durham	48	28	43·9	35·0	39·6	+ 2·3	5	27	2	0·04	−0·44	10	18
	Shields	40	24	46·3	34·6	40·7	+ 2·5	12	31	2	0·09	−0·31	*	*
	Scarborough fR	47	31	43·2	35·9	39·7	+ 1·9	3	23	2	0·10	−0·32	*	*
	York	50	19	44·7	32·7	38·9	+ 0·8	8	36	3	0·13	−0·30	?	?
	Spurn Head	46	26	42·4	33·3	38·0	− 0·7	1	32	3	0·10	?	*	*
3. ENGLAND, E.	Hillington fR	48	30	41·6	32·2	37·1	+ 0·3	0	34	3	0·36	−0·06	12	21
	Yarmouth	47	28	42·1	33·4	37·9	− 0·7	0	31	2	0·35	−0·13	*	*
	Geldeston	48	32	42·4	33·4	38·1	− 0·1	1	32	3	0·22	−0·13	15	26
	Cambridge	50	18	43·6	31·6	37·8	+ 0·2	4	39	1	0·03	−0·32	12	21
	Rothamsted	47	31	43·0	34·5	38·9	+ 1·5	3	28	2	0·23	−0·39	*	*
	Ingatestone	51	28	43·9	32·8	38·6	+ 0·7	5	35	3	0·17	−0·23	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	45	27	42·6	32·7	37·9	− 0·7	2	35	2	0·12	−0·30	13	23
	Loughborough	49	15	44·3	32·1	38·4	+ 0·8	6	38	2	0·31	−0·17	*	*
	Leicester	48	31	43·4	34·2	39·0	+ 1·8	4	30	4	0·30	−0·15	7	12
	Cheadle fR	46	31	41·6	33·5	37·7	+ 1·0	0	30	2	0·46	−0·16	*	*
	Churchstoke fR	52	32	44·8	35·2	40·2	+ 2·1	8	27	3	0·38	−0·28	15	26
	Hereford fR	55	27	46·4	35·0	40·9	+ 2·5	12	29	2	0·15	−0·47	*	*
	Cirencester	49	22	43·1	31·9	37·7	− 0·7	3	38	3	0·48	−0·29	12	21
	Oxford	50	17	43·6	33·6	38·8	− 0·1	4	32	2	0·14	−0·37	9	16
5. ENGLAND, S.	London†	54	20	44·7	33·9	39·5	+ 0·6	8	32	1	0·34	−0·16	3	5
	Strathfield Turgiss fR	50	14	43·9	32·0	38·2	− 0·1	5	38	3	0·28	−0·32	*	*
	Dungeness	47	21	43·1	33·3	38·4	− 1·7	3	33	2	0·31	−0·29	*	*
	Hastings (St. Leonard's)	48	34	42·9	36·8	40·0	+ 0·3	3	20	2	0·33	−0·30	8	14
	Southampton	51	31	45·3	37·6	41·6	+ 2·7	9	19	2	0·41	−0·39	8	14
	Hurst Castle	47	26	45·1	34·0	39·8	− 0·8	9	32	2	0·35	−0·34	*	*
	Stowell fR	51	25	44·7	34·6	39·9	− 0·1	8	30	4	0·36	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	55	35	48·3	39·5	44·1	+ 4·9	25	7	7	2·43	+0·52	*	*
	Glasgow	51	34	45·7	39·1	42·5	+ 4·1	16	8	3	0·32	+0·69	2	4
	Ardrossan	49	32	47·0	39·1	43·2	+ 3·8	21	8	6	0·35	−0·65	*	*
	Glenlee S	51	31	45·1	37·4	41·4	+ 3·7	9	19	7	1·47	?	*	*
	Douglas (Isle of Man)	50	35	46·4	39·4	43·0	+ 2·6	18	7	4	0·96	−0·15	11	20
7. ENGLAND, N.W.	Newton Reigny (Penrith)	49	29	44·2	36·0	40·3	+ 3·1	6	24	5	0·70	−0·17	9	16
	Barrow-in-Furness	47	27	43·9	36·6	40·5	+ 0·3	5	22	4	0·31	−0·58	*	*
	Stonyhurst	49	33	42·7	36·8	39·9	+ 1·6	2	20	4	0·91	−0·04	7	13
	Blackpool fR	47	27	44·2	36·5	40·5	+ 0·2	6	22	2	0·37	−0·51	10	18
	Manchester	50	33	43·8	36·3	40·2	+ 1·5	5	22	3	0·58	−0·15	*	*
	Liverpool Obsy (Bidston)	52	27	46·4	36·7	41·7	+ 1·8	12	23	2	0·28	−0·21	*	*
	Llandudno fR	52	34	47·1	39·4	43·4	+ 1·8	21	7	2	0·37	−0·26	10	18
	Holyhead	50	37	47·0	41·0	44·1	+ 1·6	19	3	4	0·28	−0·49	*	*
8. ENGLAND, S.W.	Llandovery	50	25	46·4	31·1	39·1	− 0·8	12	44	6	0·73	−0·52	*	*
	Pembroke	49	38	46·1	40·7	43·5	+ 0·8	16	4	5	0·39	−0·48	8	14
	Arlington (N. Devon)	50	30	45·4	34·9	40·4	+ 0·2	10	29	5	0·80	−0·17	*	*
	Cullompton fR	53	31	47·1	35·9	41·7	+ 0·6	14	26	3	0·35	−0·44	6	10
	Falmouth	52	38	47·4	41·4	44·5	+ 1·3	20	2	3	0·26	−1·04	10	17
	Plymouth	52	33	47·6	37·1	42·6	0·0	25	14	3	0·39	−0·53	8	13
	Prawle Point	49	34	47·0	39·1	43·2	+ 1·0	21	8	2	0·51	?	*	*
9. IRELAND, N.	Malin Head	51	35	47·3	40·0	43·8	+ 3·6	21	6	5	0·52	?	*	*
	Londonderry	54	33	48·5	39·2	44·0	+ 3·2	26	8	4	0·52	−0·38	*	*
	Mullaghmore	54	36	49·6	39·7	44·9	+ 2·6	30	6	2	0·40	−0·42	*	*
	Belmullet	52	35	49·0	41·0	45·2	+ 0·5	27	3	5	0·63	?	*	*
	Markree Castle	52	30	48·7	38·4	43·8	+ 1·8	23	10	3	0·73	−0·04	6	11
	Brookeborough	52	32	47·2	37·4	42·5	+ 2·3	23	13	1	0·60	?	*	*
	Armagh	53	33	47·8	38·2	43·2	+ 3·5	24	11	3	0·32	−0·35	4	7
	Donaghadee	53	32	48·6	36·9	43·0	+ 2·3	28	14	3	0·51	−0·17	*	*
	Edgeworthstown	52	30	47·7	35·0	41·6	+ 2·4	16	30	3	0·46	−0·20	*	*
10. IRELAND, S.	Dublin	55	35	49·3	39·6	44·6	+ 3·9	28	7	2	0·30	−0·19	9	16
	Parsonstown	53	32	48·9	33·1	42·7	+ 2·7	30	17	3	0·52	−0·18	5	9
	Kilkenny	55	31	51·1	35·6	43·7	+ 4·2	39	18	3	0·28	−0·53	*	*
	Waterford	50	30	48·0	36·6	42·5	+ 1·1	26	15	3	0·34	−0·76	*	*
	Roche's Point	51	37	48·7	41·1	45·0	+ 2·1	25	3	2	0·30	−0·99	*	*
	Valencia	54	41	51·4	43·1	47·4	+ 2·2	38	0	5	0·59	−0·92	4	7
	Killarney	54	36	50·2	39·9	45·3	+ 1·9	32	6	4	1·59	?	*	*
	Foynes	55	39	50·7	42·0	46·5	+ 5·1	32	0	4	0·46	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	52	41	49·9	43·4	46·8	+ 0·6	34	0	2	0·06	−0·82	*	*
	Jersey (Noirmont)	50	32	43·9	36·6	40·4	− 1·8	5	21	4	0·70	0·00	15	25

Stations marked fR are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY J. D. POTTER, 31, POULTRY, AND 11, KING STREET, TOWER HILL, AND E. STANFORD, 55, CHARING CROSS.

VOL. IV. No. 4.] *New Series.* WEEK ENDING MONDAY, 31ST JANUARY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

DISTRICTS. (See p. 16.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	57	28	48·7	40·1	44·6	7 above.	26	+20	5	−28	37	+16	119	−24
1. SCOTLAND, EAST	59	32	50·8	41·5	46·3	10 above.	32	+24	1	−30	45	+23	164	−17
2. ENGLAND, N.E.	54	33	48·7	37·9	43·5	5 above.	28	+20	11	−25	34	+13	173	+ 6
3. ENGLAND, EAST	54	30	47·4	34·4	41·2	3 above.	15	+ 6	32	− 6	17	− 7	215	+33
4. MIDLAND COUNTIES	60	30	49·6	36·9	43·5	5 above.	32	+22	14	−25	37	+ 4	205	+23
5. ENGLAND, SOUTH	60	30	48·1	36·4	42·5	3 above.	27	+16	16	−15	33	− 2	160	+14
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	56	35	49·1	43·1	46·3	7 above.	30	+21	0	−27	49	+18	129	−13
7. ENGLAND, N.W.	56	34	49·1	40·6	45·0	5 above.	27	+18	4	−23	35	+ 6	149	+ 6
8. ENGLAND, S.W.	55	30	49·9	41·1	45·7	4 above.	30	+12	3	−12	52	− 9	90	+ 1
9. IRELAND NORTH	57	32	51·0	43·0	47·2	6 above.	36	+23	0	−21	63	+18	109	−12
10. IRELAND, SOUTH	57	32	52·6	44·0	48·4	6 above.	45	+25	0	−16	84	+10	81	− 7
— CHANNEL ISLANDS	54	32	49·3	42·2	45·9	2 above.	27	+ 6	6	− 9	62	−14	47	− 4

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 16.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	5	16	8 more.	20	+ 1	5·4	+ 2·1	0	0	15	−11	7	− 6
1. SCOTLAND, EAST	3	3	4 less.	15	+ 3	2·2	− 0·3	15	27	39	+ 3	25	+ 1
2. ENGLAND, N.E.	1	1	4 less.	14	+ 1	1·6	− 1·3	14	24	39	+11	18	+ 5
3. ENGLAND, EAST	1	less than ½	4 less.	12	− 2	1·3	− 0·5	21	35	43	+ 2	19	+ 1
4. MIDLAND COUNTIES	1	2	4 less.	13	0	2·0	− 0·3	17	29	41	+ 9	19	+ 5
5. ENGLAND, SOUTH	2	1	5 less.	12	− 1	1·8	− 0·7	16	25	36	+ 3	18	+ 4
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	5	11	5 less.	18	+ 3	4·3	+ 0·2	7	12	33	+ 4	15	+ 1
7. ENGLAND, N.W.	3	7	1 less.	15	+ 1	2·6	− 0·5	16	28	36	+ 4	16	+ 1
8. ENGLAND, S.W.	3	3	7 less.	17	+ 2	2·8	− 1·3	11	18	42	+ 1	18	0
9. IRELAND, NORTH	3	5	3 less.	15	− 2	2·6	− 0·4	6	10	35	− 7	16	− 3
10. IRELAND, SOUTH	4	12	3 more.	16	0	3·9	0·0	16	22	53	+ 3	23	0
— CHANNEL ISLANDS	1	2	6 less.	16	0	2·5	− 0·7	35	56	92	+36	38	+14

General Remarks.

Weather has been unsettled and rainy in the extreme west of Ireland and the north and west of Scotland, but in all other parts of the Kingdom the conditions have been more settled. Much fog and mist, however, have prevailed over England, and the atmosphere has been unusually damp generally.

Temperature has been above the mean in all districts, the excess varying from 2° in the "Channel Islands" and 3° in "England, S." and "England, E." to 6° in Ireland, 7° in "Scotland, N." and "Scotland, W.", and to as much as 10° in "Scotland, E." The absolute maxima were generally very high for the season; at Hereford, and Strathfield Turgiss, the abnormally high reading of 60° was recorded on the 28th, while as far north as Nairn the thermometer on the 29th reached 59°. In most other parts of the Kingdom the maxima varied between 55° and 57°. The significance of these temperatures is shown by the fact that the records of the maxima observed at Greenwich since 1841 show no higher reading in the month of January than 57°, which occurred in 1843. The lowest of the minima, which were recorded on irregular dates, ranged from 25° in "Scotland, N." to 35° in "Scotland, W."

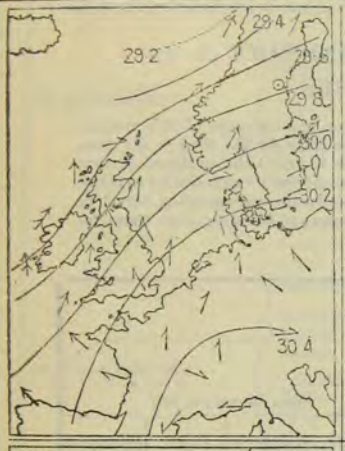
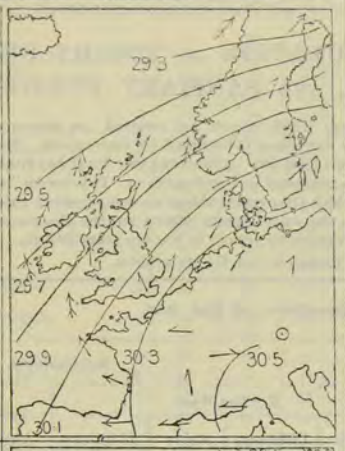
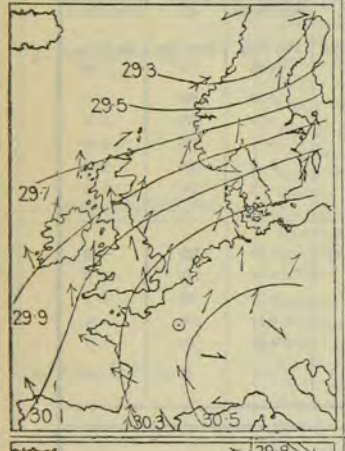
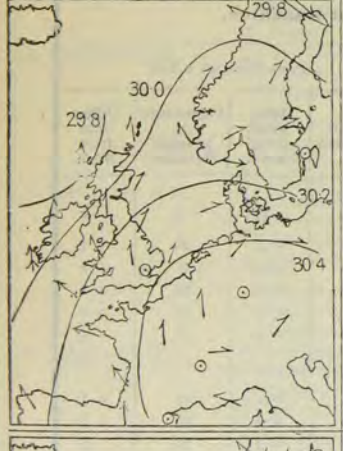
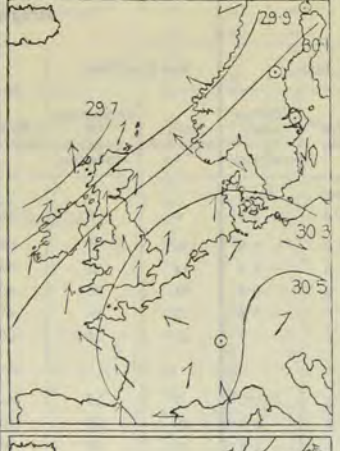
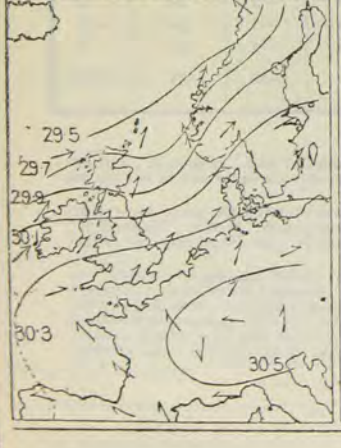
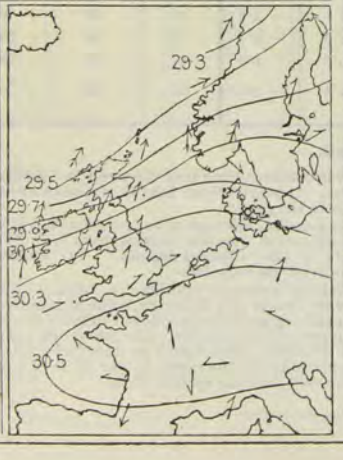
Rainfall has been more than the mean in "Scotland, N." and "Ireland, S.", but less elsewhere. At nearly all the English stations a measurable amount of dew or wet fog was deposited in the gauge.

Bright sunshine has been more prevalent than it was last week, the percentages of the possible amount of duration ranging from 12 in "Scotland, W." to 35 in "England, E." and to 56 in the "Channel Islands." In "Scotland, N." (at Stornoway) no bright sunshine at all was recorded.

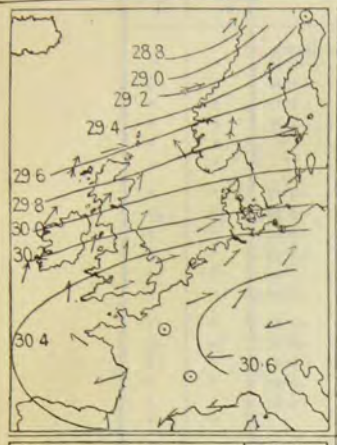
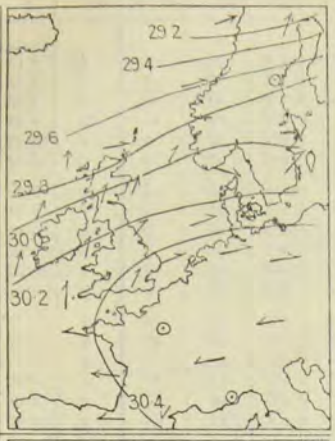
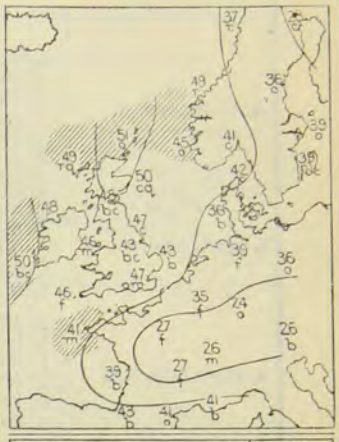
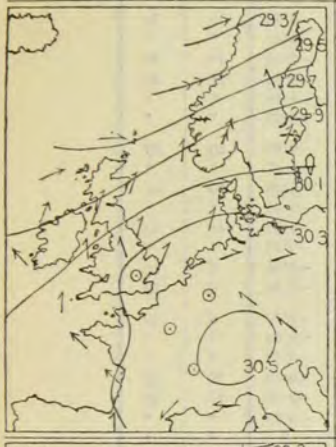
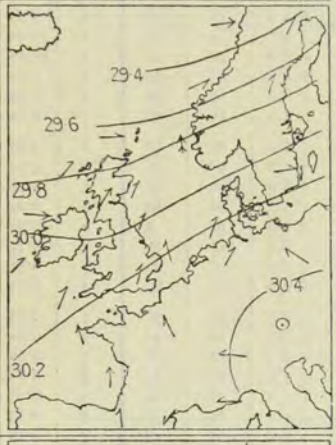
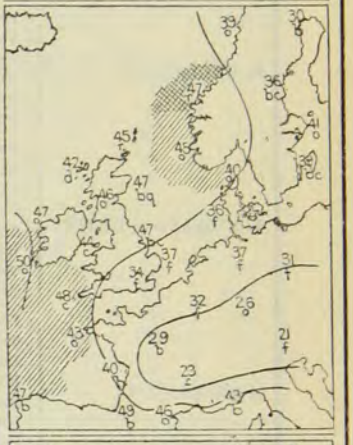
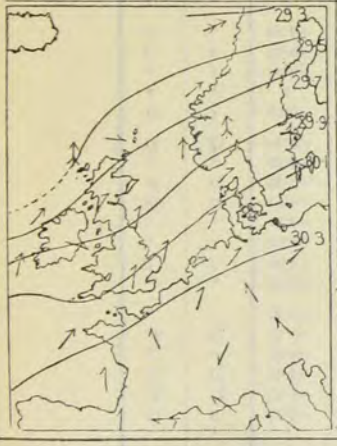
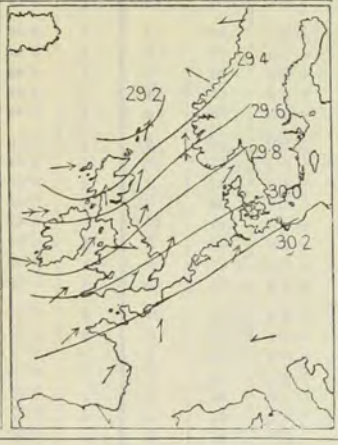
Depressions observed.—During the whole of this period barometric pressure was highest over France and Germany, while numerous depressions travelled in a northerly or north-easterly direction outside our extreme western and northern coasts and over the northern parts of Scandinavia. The winds over our Islands were consequently Southerly or South-Westerly; on our more western and northern coasts they blew strongly, and on several occasions they increased to the force of a gale; in the east and south, however, they were very generally light in force.

A 50284. 350.—2/87. Wt. 44. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, January 25.** *Weather* dull in our Islands, Denmark, and the north of France, with fog in several places, and rain at some of our southern stations, but fine elsewhere. Rain falling later in the northern parts of the United Kingdom. *Temperature* fallen a little in Denmark, Germany, and the east of France, but risen elsewhere; readings over our Islands ranging from 53° at Valencia and 52° at Mullaghmore to 35° at Yarmouth. Subsequently rising as high as 56° at Nairn and Mullaghmore. *Wind* Southerly or South-Easterly on nearly all coasts; strong to a gale in the west and north-west, but moderate elsewhere. *Sea* high at Valencia, and rough on our west and south-west coasts generally. *Barometer* falling at all but the French stations. Pressure highest in the south of France, with a depression off the north-west of Norway, and another off our extreme north-west coasts. Slight rise taking place in west later.	
		**Wednesday, January 26.** *Weather* dull, unsettled, and rainy in Ireland, Scotland, and the west of Norway, but fair or fine elsewhere. *Temperature* risen at all but our south-western and the German stations; readings over our Islands ranging from 52° at Nairn, Mullaghmore, and Valencia to 37° at Cambridge. *Wind* South-Westerly in the north, but Southerly or South-Easterly elsewhere; strong in force on our western coasts. *Sea* rough or rather so in the west and extreme north, but moderate to smooth elsewhere. *Barometer* rising at all but the Scandinavian stations. Pressure highest over the south-east of France, with a well-marked depression over the northern parts of Norway. Slight fall taking place in Ireland in afternoon.	
		**Thursday, January 27.** *Weather* dull and showery on our extreme west and north-west coasts, and foggy over the Netherlands and greater part of England, but fair or fine elsewhere. *Temperature* fallen in most places; readings over our Islands ranging from 52° at Leith and Mullaghmore to 34° at Cambridge and in London. Subsequently rising to 56° at Nairn. *Wind* South-Westerly or Westerly over Germany, Denmark, and the shores of the North Sea, but Southerly or South-Easterly elsewhere; strong to a gale on exposed parts of our western coasts. Subsequently veering to South-West in Ireland. *Sea* rough in the west and south-west as well as at Stornoway. *Barometer* rising at all but our western and extreme northern stations. Pressure highest over Germany and the south-east of France, with a depression off our north-west coasts. Depression subsequently moving northwards, and barometer rising again in west.	
		**Friday, January 28.** *Weather* fair generally, but fog prevailing in the Netherlands, and showers at one or two of our northern and eastern stations. *Temperature* risen over the greater part of England, but fallen elsewhere; readings over our Islands ranging from 50° at Scilly to 39° at Wick and in London. *Wind* light Easterly or South-Easterly in France, but South-Westerly elsewhere; strong in force on our extreme western and northern coasts. Subsequently increasing to a fresh or strong gale in Ireland and Scotland. *Sea* rough in the extreme south-west, west, and north-west, but slight or smooth elsewhere. *Barometer* falling on our north and east coasts and also in Scandinavia and Denmark, but rising elsewhere. Pressure highest over Germany and the east of France, with a large area of low readings to the northward of our Islands and the westward of Norway. Depression subsequently skirting our extreme northern coasts in a north-easterly direction.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, January 29.** *Weather* foggy over the channel, the south of England, and the Netherlands, and cloudy or overcast in most other localities. Rain falling later in the extreme north of Scotland. *Temperature* fallen a little in England and France, but risen elsewhere; readings over our Islands ranging from 52° at Nairn to 43° at York, Loughborough, and Yarmouth. Subsequently rising as high as 59° at Nairn. *Wind* Easterly or South-Easterly in France, but South-Westerly elsewhere; strong to a gale in force on our extreme north and north-west coasts. *Sea* rough on the west of Ireland and north of Scotland. *Barometer* rising at all but the Scandinavian and Danish stations. Pressure highest over Germany, with depressions to the northward of our Islands and the westward of Norway. Slight fall taking place later over England and France.	
		**Sunday, January 30.** *Weather* dull and unsettled on our extreme western and northern coasts, and foggy over Germany and the Netherlands, but fair or fine elsewhere. *Temperature* fallen a little generally; readings ranging from 50° at Nairn and Valencia to 34° in London and 33° at Oxford. *Wind* South-Easterly in France and the southern parts of England and Ireland, but South-Westerly elsewhere; strong to a gale in force in Norway. Subsequently veering to the south-westward over the whole of our Islands. *Sea* rough on our extreme west and south-west coasts. *Barometer* falling at all but the Swedish stations. Pressure highest over Switzerland and the east of France and lowest to the north-westward of Norway. Slight rise taking place later on our extreme western coasts.	
		**Monday, January 31.** *Weather* fair generally, but cloudy in many parts of our Islands, with rain at some of the English stations. Rain falling later on our extreme western and northern coasts. *Temperature* fallen several degrees on our western and northern coasts, but risen elsewhere; readings over our Islands ranging from 40° at Prawle Point to 35° at Nairn. Frost occurring over Scotland and Central Ireland at night. *Wind* Easterly in the south of France, but Southerly or South-Westerly elsewhere; strong in force on our extreme western coasts, but moderate elsewhere. Subsequently increasing to a gale in Ireland and the west of Scotland. *Sea* rough in the extreme south-west, west, and north-west, but moderate to smooth elsewhere. *Barometer* falling at all but the French stations. Pressure highest in Germany, but relatively high in France and Spain, with a depression to the north-westward of our Islands. Depression subsequently moving away in a northerly direction, but "V-shaped" subsidiary disturbances appearing over Ireland and Scotland.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⟹ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 13 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	51	36	47·9	41·1	44·6	+ 5·4	22	3	6	0·79	−0·04	*	*
	Stornoway	52	33	48·0	39·4	43·9	+ 5·0	24	7	7	2·05	+0·90	0	0
	Wick	53	33	49·4	38·7	44·3	+ 5·9	30	9	4	0·47	0·00	*	*
	Lairg ℌ	57	25	46·0	38·2	42·3	+ 5·2	18	11	?2	0·46	−0·31	*	*
	Glencarron ℌ	53	33	49·1	40·9	45·2	+ 8·3	27	3	7	3·42	?	*	*
	Fort Augustus ℌ	53	34	51·5	42·2	47·0	+ 9·0	35	0	6	2·19	?	*	*
1. SCOTLAND, E.	Nairn	59	32	54·9	41·0	48·2	+10·3	48	3	4	0·41	−0·02	*	*
	Aberdeen	54	36	50·4	42·0	46·4	+ 8·9	31	0	1	0·02	−0·55	15	27
	Braemar ℌ	51	33	48·8	40·2	44·7	+10·9	26	5	4	0·26	−0·45	?	?
	Ochtertyre ℌ	54	33	49·7	41·4	45·7	+ 8·7	28	2	5	0·85	−0·40	*	*
	Leith	54	38	52·3	44·4	48·5	+10·6	46	0	1	0·06	−0·38	*	*
	Marchmont ℌ	53	35	48·6	40·6	44·5	+ 8·8	26	6	3	0·26	−0·39	?	?
2. ENGLAND, N.E.	Alnwick Castle	52	38	49·6	41·1	45·5	+ 7·8	28	3	0	—	−0·53	*	*
	Durham	53	34	48·5	37·5	43·2	+ 5·3	27	13	1	0·05	−0·51	14	24
	Shields	54	34	50·9	38·9	45·1	+ 6·5	35	9	0	—	−0·40	*	*
	Scarborough ℌ	51	33	47·9	37·9	43·1	+ 5·2	25	11	1	0·11	−0·32	*	*
	York	52	35	49·3	37·1	43·4	+ 5·2	30	14	1	0·19	−0·26	?	?
	Spurn Head	48	33	45·9	35·1	40·7	+ 1·8	11	28	0	‖0·01	?	*	*
3. ENGLAND, E.	Hillington ℌ	52	33	47·7	35·3	41·8	+ 4·5	16	30	2	0·10	−0·33	19	32
	Yarmouth	50	33	44·9	34·3	39·9	+ 0·7	8	31	0	‖0·02	−0·47	*	*
	Geldeston	54	33	47·8	35·1	41·7	+ 2·6	16	30	0	‖0·02	−0·35	23	38
	Cambridge	54	30	50·3	33·1	42·0	+ 3·8	23	25	1	0·04	−0·32	21	34
	Rothamsted	51	30	46·9	35·1	41·2	+ 3·2	14	29	1	0·04	−0·48	*	*
	Ingatestone	51	31	47·0	33·3	40·4	+ 2·0	14	36	1	0·04	−0·36	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	53	35	48·3	36·6	42·7	+ 3·5	28	15	1	0·16	−0·26	20	33
	Loughborough	54	35	51·1	37·1	44·4	+ 6·2	37	14	1	0·02	−0·47	*	*
	Leicester	54	35	50·0	38·0	44·2	+ 6·5	32	11	1	0·12	−0·35	23	38
	Cheadle ℌ	52	35	47·8	36·4	42·3	+ 4·7	26	16	2	0·29	−0·35	*	*
	Churchstoke ℌ	58	37	52·2	39·0	45·9	+ 7·0	40	8	2	0·38	−0·29	31	52
	Hereford ℌ	60	31	52·7	37·0	45·2	+ 6·0	43	14	1	0·11	−0·51	*	*
	Cirencester	49	30	47·3	35·3	41·5	+ 2·8	15	29	1	0·21	−0·54	7	11
	Oxford	52	33	47·7	35·7	41·9	+ 2·7	16	27	2	0·02	−0·49	6	10
5. ENGLAND, S.	London†	52	30	48·9	34·6	42·0	+ 2·8	19	21	1	0·02	−0·47	8	13
	Strathfield Turgiss ℌ	60	30	50·7	31·8	41·6	+ 2·7	24	44	2	0·04	−0·54	*	*
	Dungeness	49	36	46·4	39·0	42·9	+ 2·5	19	8	1	0·05	−0·52	*	*
	Hastings (St. Leonard's)	48	36	46·6	38·5	42·8	+ 2·5	20	10	3	0·11	−0·40	28	45
	Southampton	53	30	48·4	36·9	42·9	+ 3·7	28	14	0	‖0·01	−0·76	11	18
	Hurst Castle	49	31	47·3	36·6	42·2	+ 1·2	24	15	3	0·13	−0·55	*	*
	Stowell ℌ	52	34	48·7	37·6	43·4	+ 2·3	28	12	2	0·16	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	56	35	52·8	44·0	48·6	+ 9·4	46	0	7	2·82	+0·85	*	*
	Glasgow	50	37	49·2	43·7	46·6	+ 7·9	32	0	4	0·49	−0·51	5	9
	Ardrossan	48	39	47·1	43·4	45·3	+ 5·7	23	0	5	0·44	−0·51	*	*
	Glenlee ℌ	51	36	48·4	40·6	44·7	+ 6·9	25	4	5	1·05	?	*	*
	Douglas (Isle of Man)	50	39	48·2	43·9	46·1	+ 5·5	29	0	5	0·48	−0·60	8	14
7. ENGLAND, N.W.	Newton Reigny (Penrith)	51	36	48·7	40·2	44·6	+ 7·0	26	5	4	0·71	−0·14	17	29
	Barrow-in-Furness	47	36	46·0	39·4	42·8	+ 2·4	17	7	2	0·63	−0·21	*	*
	Stonyhurst	52	34	47·4	38·9	43·3	+ 4·4	22	9	4	0·57	−0·38	20	34
	Blackpool ℌ	50	37	48·1	39·2	43·8	+ 3·1	24	8	3	0·65	−0·01	19	32
	Manchester	54	37	49·0	38·4	44·0	+ 4·8	29	10	5	0·49	−0·21	*	*
	Liverpool Obsy (Bidston)	53	35	50·6	40·1	45·6	+ 5·3	33	5	3	0·53	+0·05	*	*
	Llandudno ℌ	56	39	54·7	45·0	50·1	+ 7·9	57	0	1	0·69	+0·06	9	15
	Holyhead	50	39	48·4	43·3	46·0	+ 3·3	28	0	2	1·04	+0·29	*	*
8. ENGLAND, S.W.	Llandovery	54	30	51·6	34·9	43·6	+ 3·2	41	20	5	0·80	−0·42	*	*
	Pembroke	49	41	47·9	43·7	45·8	+ 2·9	27	0	5	0·32	−0·53	14	23
	Arlington (N. Devon)	53	36	50·3	39·9	45·3	+ 5·0	32	6	4	0·38	−0·67	*	*
	Cullompton ℌ	55	33	50·0	39·4	45·0	+ 3·8	32	7	2	0·13	−0·68	10	16
	Falmouth	53	44	50·5	45·8	48·2	+ 4·6	43	0	2	0·36	−0·91	11	17
	Plymouth	52	40	50·5	41·7	46·3	+ 3·4	31	1	3	0·17	−0·73	9	14
	Prawle Point	50	38	48·7	42·1	45·5	+ 2·8	25	0	1	0·21	?	*	*
9. IRELAND, N.	Malin Head	52	34	49·7	42·7	46·3	+ 5·8	30	0	3	0·47	?	*	*
	Londonderry	57	33	52·8	43·1	48·1	+ 7·3	43	0	3	0·42	−0·46	*	*
	Mullaghmore	56	35	52·1	44·1	48·3	+ 6·2	44	0	3	+0·61	−0·23	*	*
	Belmullet	52	39	50·4	44·7	47·7	+ 3·6	40	0	5	1·27	?	*	*
	Markree Castle	54	32	51·4	42·6	47·2	+ 5·5	36	0	5	0·42	−0·33	2	3
	Brookeborough	53	34	50·6	42·8	46·9	+ 6·8	34	0	2	0·25	?	*	*
	Armagh	54	34	51·9	43·8	48·0	+ 7·9	42	0	3	0·36	−0·29	10	17
	Donaghadee	53	34	49·4	42·1	45·9	+ 5·2	27	0	2	0·19	−0·49	*	*
	Edgeworthstown	53	33	51·1	41·9	46·7	+ 7·1	33	0	3	0·49	−0·21	*	*
10. IRELAND, S.	Dublin	57	37	55·0	45·9	50·6	+ 9·6	60	0	2	0·45	−0·05	21	35
	Parsonstown	55	32	52·6	42·6	47·8	+ 7·6	41	0	4	0·77	+0·08	12	20
	Kilkenny	55	33	53·6	41·9	48·0	+ 8·0	42	0	3	0·57	−0·23	*	*
	Waterford	52	32	49·9	42·9	46·5	+ 4·5	32	0	3	0·94	−0·16	*	*
	Roche's Point	51	38	49·9	44·3	47·2	+ 4·0	36	0	4	0·91	−0·36	*	*
	Valencia	54	36	52·9	46·9	50·0	+ 4·8	56	0	5	2·08	+0·65	6	10
	Killarney	55	34	52·8	44·8	49·0	+ 5·3	49	0	6	3·32	?	*	*
	Foynes	55	35	53·7	42·7	48·4	+ 6·9	45	0	4	0·85	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	54	45	51·6	46·7	49·3	+ 3·1	51	0	2	0·25	−0·57	*	*
	Jersey (Noirmont)	51	32	46·9	37·7	42·5	+ 0·1	22	12	0	‖0·04	−0·66	35	56

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

‖ denotes that the values were wholly dew or fog.

(OFFICIAL COPY.)

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY J. D. POTTER, 31, POULTRY, AND 11, KING STREET, TOWER HILL, AND E. STANFORD, 55, CHARING CROSS.

VOL. IV. No. 5.] *New Series.* WEEK ENDING MONDAY, 7TH FEBRUARY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 20.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	50	23	43·3	32·8	38·1	0 (average).	4	− 3	33	+ 3	42*	+14	166*	− 4
	1. SCOTLAND, EAST	51	22	45·4	32·8	39·1	2 above.	10	+ 1	35	− 2	55	+25	199	−15
	2. ENGLAND, N.E.	56	22	47·0	34·5	40·8	2 above.	14	+ 5	30	− 2	48	+20	203	+ 1
	3. ENGLAND, EAST	56	23	48·5	35·0	41·8	3 above.	18	+ 6	29	− 4	35	+ 1	244	+24
	4. MIDLAND COUNTIES†	56	24	48·0	34·3	41·2	2 above.	17	0	32	− 1	54	+11	237	+18
	5. ENGLAND, SOUTH	55	26	48·3	37·1	42·7	2 above.	25	+12	14	−12	58	+13	174	− 3
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	51	25	44·9	36·3	40·6	1 above.	8	− 2	22	− 2	57	+18	151	−15
	7. ENGLAND, N.W.†	54	27	46·0	35·1	40·6	0 (average)	11	0	27	+ 3	46	+ 8	176	+ 5
	8. ENGLAND, S.W.	54	26	48·7	39·5	44·2	2 above.	26	+ 6	7	−16	78	+ 1	97	−10
	9. IRELAND, NORTH	57	26	47·7	35·5	41·6	1 above.	16	+ 2	27	+ 4	79	+21	136	− 7
	10. IRELAND, SOUTH	56	25	50·1	38·3	44·2	1 above.	31	+10	10	− 4	115	+21	91	−12
	— CHANNEL ISLANDS	54	36	49·6	42·7	46·2	2 above.	29	+ 7	6	− 6	91	− 6	47	−11

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 20.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	15	7 more.	26	+ 2	6·9	+ 2·8	18	31	33	− 2	13	− 1
	1. SCOTLAND, EAST	4	9	2 more.	19	+ 3	3·1	− 0·1	25	42	64	+ 4	24	+ 1
	2. ENGLAND, N.E.	3	2	2 less.	17	0	1·8	− 1·5	20	33	58*	+23	21	+ 8
	3. ENGLAND, EAST	3	4	1 less.	15	− 3	1·7	− 0·5	20	31	63	+ 9	22	+ 3
	4. MIDLAND COUNTIES†	3	3	2 less.	16	0	2·3	− 0·6	18	28	59	+16	20	+ 5
	5. ENGLAND, SOUTH	3	3	3 less.	15	− 1	2·1	− 1·0	16	25	52	+ 8	18	+ 3
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	4	16	1 more.	22	+ 2	5·9	+ 0·8	15	24	48	+13	16	+ 3
	7. ENGLAND, N.W.†	4	4	3 less.	19	+ 1	3·0	− 0·8	17	27	53	+13	18	+ 4
	8. ENGLAND, S.W.	3	4	6 less.	20	+ 1	3·2	− 1·9	18	28	60	+ 5	20	+ 1
	9. IRELAND, NORTH	5	14	6 more.	20	− 2	4·0	+ 0·2	21	34	56	+ 4	20	+ 1
	10. IRELAND, SOUTH	5	9	0 (average).	21	0	4·8	0·0	19	30	72	+ 9	25	+ 3
	— CHANNEL ISLANDS	4	3	5 less.	20	0	2·8	− 1·2	26	39	118	+42	38	+13

General Remarks.

Weather has continued rather unsettled in the extreme west and north, but over England the conditions have remained generally fair, although in several places mist or fog has occasionally prevailed.

Temperature has continued above the mean in nearly all districts, the excess varying between 1° and 3°. The highest of the maxima, which were registered on irregular dates, ranged from 50° or 51° in Scotland to between 54° and 57° in England and Ireland. The lowest of the minima, which were generally recorded either on the 6th or 7th, ranged from 22° in "Scotland, E." and "England, N.E." to 28° in "England, S.W." and 36° in the "Channel Islands".

Rainfall has been more than the mean in Scotland and the north of Ireland, but less over England and at most of the southern Irish stations.

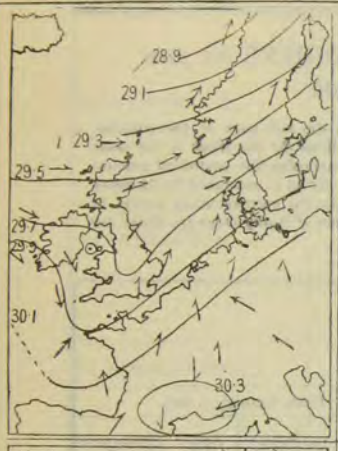
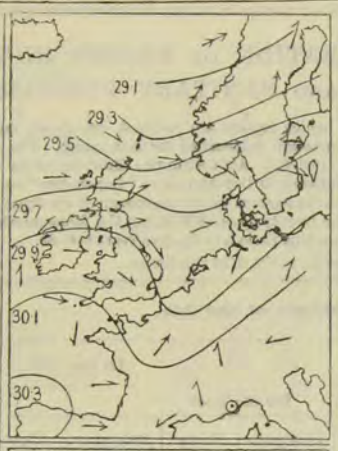
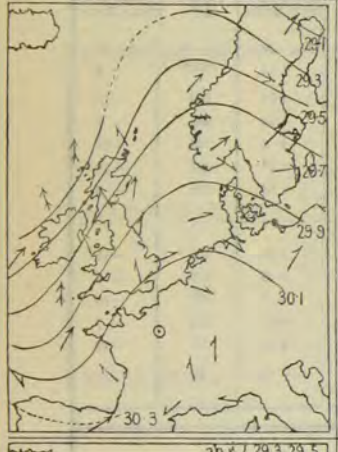
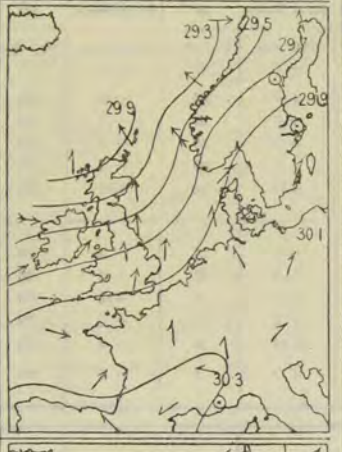
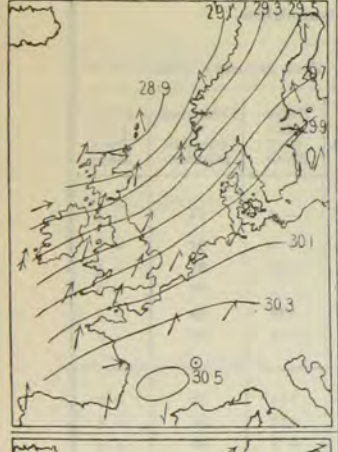
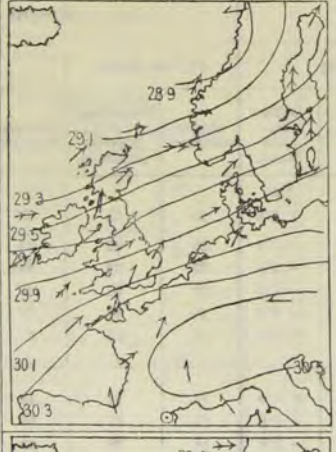
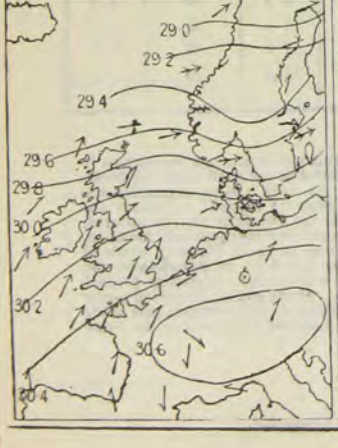
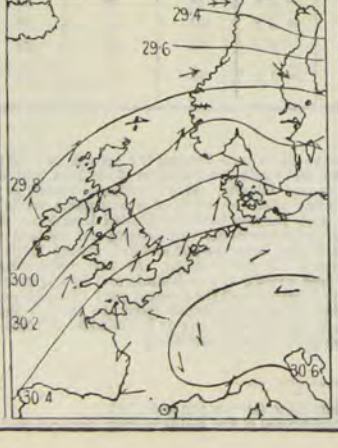
Bright sunshine has been more prevalent in most places than it was last week, the percentages of the possible amount of duration ranging from 24 in "Scotland, W." to 39 in the "Channel Islands".

Depressions observed.—During the greater part of this period pressure was highest in the southern and south-eastern parts of our area, and lowest to the northward and north-westward of our Islands. At the commencement of the week a large depression was travelling away over the north of Scandinavia, while some "V shaped" subsidiary disturbances were passing over the United Kingdom. By the 2nd these had disappeared, but another large depression was skirting our western coasts in a north-easterly direction, and caused, during both the 2nd and 3rd, strong Southerly to South-Westerly winds or gales at nearly all our stations. As this disturbance moved on to Scandinavia the barometer rose steadily in our Islands, and by the 6th a well defined anticyclone covered the whole of England and the greater part of Scotland. At the end of the period a long band of high pressure stretched from the Gulf of Bothnia to the southern part of the North Sea, while the winds in our Islands had become East-South-Easterly in the south and Southerly in the west and north.

* These values have been altered owing to the receipt of some arrears of observations from Glencarron and York.
† The accumulated values in these districts are liable to alteration, owing to the non-arrival of the Returns from Hereford and Llandudno.

A 50365. 350.—2/87. Wt. 44. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

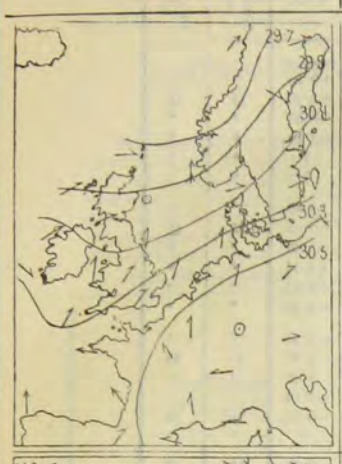
Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, February 1.** *Weather* fine at some of our western and northern stations, but cloudy elsewhere, with rain in many parts of England, snow or hail showers on our extreme north-west coasts, and fog over France and the Netherlands. Improvement taking place over our Islands later. *Temperature* fallen a little in the west and north, but risen elsewhere; readings over our Islands ranging from 49° in London to 33° at Stornoway and Parsonstown and 32° at Wick. Frost occurring over England at night. *Wind* Westerly on our north and north-west coasts, and North-Westerly in the south-west, but South-Westerly or Southerly elsewhere; strong in force at our south-eastern and many of the Continental stations. Subsequently veering to North-West on our south-east coasts, but backing to South-West in the west. *Sea* rough in the south-west and extreme north. *Barometer* falling at all but our western and northern stations. Pressure highest in the south of France, with a depression off the north-west of Norway and some "V-shaped" subsidiary disturbances over England. Secondary depressions moving eastwards later, and barometer rising over England.	
		**Wednesday, February 2.** *Weather* fine and bright at our eastern, central, and the Swedish stations, but cloudy elsewhere, with rain on several parts of our western coasts. Rain falling in Scotland later. *Temperature* risen in the west and north of our Islands, but fallen elsewhere; readings over the United Kingdom ranging from 50° at Valencia to 31° at Loughborough and Cambridge. *Wind* South-Easterly or Southerly in our Islands and France, with gales on our west and north-west coasts, but Westerly or North-Westerly in Scandinavia and Denmark. Subsequently increasing to a gale in Scotland and to a strong breeze in the east and south of England. *Sea* rough west and extreme north. *Barometer* falling at all but our south-eastern and the Continental stations. Pressure highest in Spain, with a rather deep depression off the west of Scotland. Depression subsequently moving northwards, and barometer rising again on our western coasts.	
		**Thursday, February 3.** *Weather* cloudy generally, with squalls and showers in many places. Some improvement taking place later on our western and northern coasts. *Temperature* risen several degrees over our Islands and the west of Norway, but fallen elsewhere; readings over the United Kingdom ranging from 53° at Valencia and 52° at Parsonstown and Scilly to 39° in the Shetlands. *Wind* South-Westerly or Southerly over nearly the whole of Western Europe; strong to a gale in force in our Islands and the west of Norway. *Sea* high or rough on all but our east coasts. *Barometer* rising in Germany, France, and the south of our Islands, but falling elsewhere. Pressure highest in the south of France, with a deep depression off the north of Scotland. Depression subsequently moving northwards, and barometer rising at all but the Scandinavian stations.	
		**Friday, February 4.** *Weather* dull and unsettled at our extreme northern and also at our southern stations, but fine elsewhere. Rain setting in later on our western and northern coasts. *Temperature* fallen at all but the Swedish and Danish stations; readings over our Islands ranging from 51° at Valencia, Scilly, and in London, to 38° at Wick. *Wind* chiefly South-Westerly, moderate in force on our north and east coasts, but strong in the west and south. Subsequently backing to the southward at some of our western stations. *Sea* rough on our south and south-west coasts, but moderate to smooth elsewhere. *Barometer* rising generally. Pressure highest over Germany and the east of France, with a deep depression passing north-eastwards over the north of Scandinavia. Slight fall taking place later in the south of Ireland.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

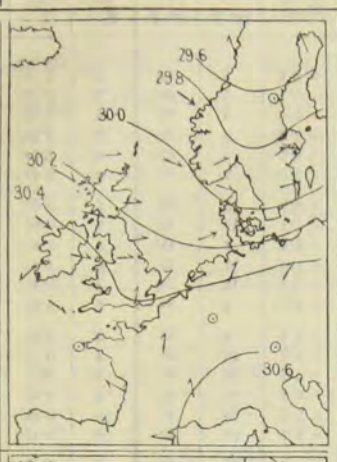
Synoptic Charts.

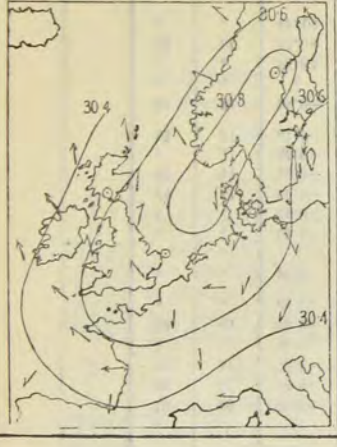
PRESSURE AND WIND.

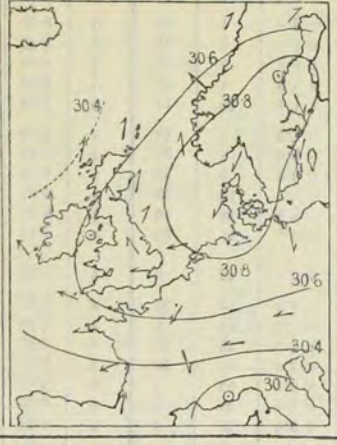
8 a.m.



6 p.m.







Weather

During the 24 hours succeeding

8 a.m. on the dates given.

Saturday, February 5.

Weather rainy at several of our western and northern station and also in the south of Norway, but fair or fine elsewhere. Improvement taking place in west and north later.

Temperature risen a little over the north of England, but fallen elsewhere; readings over our Islands ranging from 50° at Scilly to 36° at Stornoway. Subsequently rising above 55° at some of the English stations.

Wind South-Easterly in France and North-Westerly in the south of Ireland, but South-Westerly elsewhere; moderate or fresh in force generally. Subsequently veering to West or North-West on all our western and northern coasts.

Sea rather rough at the mouth of the Channel and also off the west of Norway, but slight or smooth elsewhere.

Barometer rising at all but the French stations. Anticyclone lying over Germany and the south-east of France, with a large area of low pressure to the northward of our Islands and some shallow depressions over our western coasts. Depressions subsequently moving eastwards, and anticyclone appearing off the west of Ireland.

Sunday, February 6.

Weather fine generally, but foggy at some of the French stations. Subsequently becoming dull and unsettled in the west and south of Ireland.

Temperature risen slightly in Germany and the west of France, but fallen elsewhere—several degrees over the United Kingdom; readings in our Islands ranging from 48° at Scilly to 29° at Loughborough and Donaghadee. Frost occurring in most places at night.

Wind North-Westerly or Northerly over Scandinavia, Denmark, and the Netherlands, but Easterly over the Channel and Bay of Biscay; South-Easterly on our western coasts and South-Westerly or Westerly in the north. South-Easterly winds subsequently blowing strongly in Ireland.

Sea rather rough at Christiansund and Valencia as well as off the north-west of France.

Barometer rising at all but the German stations. Anticyclone still lying over the south-east of France, but new high pressure system moving eastwards across Great Britain. Fall taking place later in Ireland and the west of Scotland.

Monday, February 7.

Weather fair generally, but dull and misty over Ireland and the west of Scotland, and foggy over eastern and central England. A little rain falling later on our extreme western and northern coasts.

Temperature risen several degrees in the west and north of our Islands, but fallen elsewhere; readings over the United Kingdom ranging from 50° at Valencia to 29° at Loughboro'. Sharp frost occurring over England at night.

Wind Northerly in Denmark and the south of Sweden, North Easterly or Easterly in Germany and France, Easterly or South-Easterly over England, and Southerly in Ireland and Scotland. Strong in force on our extreme western coasts, but light or moderate elsewhere.

Sea rough at Valencia, and rather rough at Stornoway, but moderate to smooth elsewhere.

Barometer falling a little in Spain, the south of France, and the west and north of our Islands, but rising elsewhere. Anticyclonic band with readings above 30·8 inches extending from Sweden to the southern part of the North Sea, and depression apparently skirting our western coasts. Disturbance subsequently moving northwards and barometer rising again in west.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 17 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head ☆	45	33	42·9	35·3	39·1	+ 0·1	3	24	6	1·12	+0·28	*	*
	Stornoway	47	31	44·3	32·6	38·5	− 0·5	6	35	7	2·15	+1·05	18	31
	Wick	47	30	43·1	33·0	38·1	− 0·6	3	33	4	0·42	−0·06	*	*
	Lairg ☆	46	23	41·6	30·7	36·2	− 0·8	0	41	7	0·64	−0·14	*	*
	Glencarron ☆	48	29	43·6	31·9	37·8	+ 0·7	4	37	6	2·44	?	*	*
	Fort Augustus ☆	50	26	44·4	33·3	38·9	+ 0·6	7	32	5	2·27	?	*	*
1. SCOTLAND, E.	Nairn	49	29	45·7	32·3	39·0	+ 0·9	10	37	5	0·65	+0·25	*	*
	Aberdeen	50	30	46·4	33·6	40·0	+ 2·1	12	32	3	0·56	−0·04	25	42
	Braemar ☆	45	22	42·6	30·4	36·5	+ 2·5	2	41	5	1·39	+0·63	*	*
	Ochtertyre ☆	50	25	46·0	31·7	38·9	+ 1·6	11	39	5	1·68	+0·46	*	*
	Leith	51	27	46·7	35·6	41·2	+ 2·7	13	26	4	0·46	+0·03	*	*
	Marchmont ☆	50	28	44·9	33·0	39·0	+ 3·0	8	34	3	0·39	−0·26	*	*
2. ENGLAND, N.E.	Alnwick Castle	51	25	45·1	32·6	38·9	+ 0·8	9	35	3	0·39	−0·18	*	*
	Durham	52	22	46·3	32·3	39·3	+ 0·8	12	37	3	0·15	−0·31	21	34
	Shields	54	29	48·1	34·4	41·3	+ 2·4	17	31	3	0·20	−0·20	*	*
	Scarborough ℳ	54	30	47·2	35·7	41·5	+ 3·3	15	26	3	0·27	−0·16	*	*
	York	56	29	48·9	34·6	41·8	+ 3·1	19	31	5	0·23	−0·24	19	31
	Spurn Head	52	28	46·1	37·3	41·7	+ 2·7	11	19	2	0·15	?	*	*
3. ENGLAND, E.	Hillington ℳ	54	23	48·3	34·0	41·2	+ 2·8	18	33	2	0·42	−0·03	17	27
	Yarmouth	53	29	47·6	35·3	41·5	+ 2·0	16	28	2	0·40	−0·10	*	*
	Geldeston	56	29	48·9	35·8	42·4	+ 2·4	29	17	2	0·27	−0·12	24	38
	Cambridge	56	27	49·7	33·9	41·8	+ 2·6	22	34	2	0·31	−0·07	18	28
	Rothamsted	55	28	47·8	35·2	41·5	+ 2·8	16	28	4	0·45	−0·15	*	*
	Ingatestone	53	28	48·8	35·6	42·2	+ 3·2	28	18	3	0·23	−0·17	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	54	26	47·1	32·9	40·0	+ 0·3	14	35	2	0·07	−0·35	15	24
	Loughborough	56	24	49·4	35·0	42·2	+ 3·2	31	20	3	0·75	+0·26	*	*
	Leicester	55	24	48·3	34·8	41·6	+ 3·2	18	30	3	0·26	−0·23	13	21
	Cheadle ℳ	53	27	46·0	33·3	39·7	+ 1·5	11	34	3	0·26	−0·42	*	*
	Churchstoke ℳ	54	25	48·1	32·8	40·5	+ 0·6	17	37	2	0·30	−0·39	24	38
	Hereford ℳ												*	*
	Cirencester	55	27	47·6	34·7	41·2	+ 2·1	16	30	3	0·37	−0·35	15	23
	Oxford	56	27	49·4	36·3	42·9	+ 3·0	30	16	4	0·40	−0·12	21	33
5. ENGLAND, S.	London†	55	30	49·7	38·0	43·9	+ 3·9	30	11	3	0·25	−0·23	7	11
	Strathfield Turgiss ℳ	55	26	49·0	35·6	42·3	+ 2·4	29	18	3	0·25	−0·32	*	*
	Dungeness	52	30	47·4	36·3	41·9	+ 1·0	15	24	3	0·33	−0·22	*	*
	Hastings (St. Leonard's)	51	31	47·1	35·9	41·5	+ 0·8	14	25	3	0·32	−0·26	21	33
	Southampton	52	30	49·1	37·2	43·2	+ 3·0	29	13	3	0·47	−0·29	20	31
	Hurst Castle	50	30	48·0	39·1	43·6	+ 1·8	23	8	3	0·51	−0·16	*	*
	Stowell ℳ	53	30	47·7	37·8	42·8	+ 2·2	23	12	3	0·23	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	46	32	44·3	36·3	40·3	+ 0·8	6	22	6	3·49	+1·44	*	*
	Glasgow	48	31	44·3	35·7	40·0	+ 1·1	6	24	3	1·32	+0·35	13	12
	Ardrossan	48	33	45·3	38·1	41·7	+ 2·2	9	16	4	1·15	+0·25	*	*
	Glenlee ☆	51	25	44·3	33·1	38·7	+ 0·9	6	33	5	1·43	?	*	*
	Douglas (Isle of Man)	50	30	46·2	38·3	42·3	+ 1·4	18	10	4	0·56	−0·46	16	26
7. ENGLAND, N.W.	Newton Reigny (Penrith)	51	27	45·1	33·4	39·3	+ 1·4	9	33	4	0·65	−0·19	15	25
	Barrow-in-Furness	48	33	44·4	36·4	40·5	− 0·2	7	22	4	0·53	−0·23	*	*
	Stonyhurst	52	27	45·3	33·3	39·3	+ 0·3	9	33	4	0·43	−0·52	18	29
	Blackpool ℳ	51	28	45·7	34·2	40·0	− 1·0	10	30	4	0·61	−0·04	17	27
	Manchester	54	29	46·8	33·9	40·4	+ 0·8	13	32	3	0·20	−0·47	*	*
	Liverpool Obsy (Bidston)	53	31	47·3	35·7	41·5	+ 0·7	15	26	4	0·28	−0·20	*	*
	Llandudno ℳ													
	Holyhead	50	34	47·6	38·9	43·3	+ 0·4	22	9	4	0·23	−0·52	*	*
8. ENGLAND, S.W.	Llandovery	51	26	48·4	33·6	41·0	+ 0·2	18	34	4	0·80	−0·39	*	*
	Pembroke	50	37	46·9	41·0	44·0	+ 1·0	18	3	3	0·20	−0·64	19	30
	Arlington (N. Devon)	51	30	47·4	37·6	42·5	+ 1·7	22	12	2	0·31	−0·84	*	*
	Cullompton ℳ	54	28	49·9	38·4	44·2	+ 2·5	31	10	2	0·15	−0·68	18	18
	Falmouth	54	37	50·3	42·8	46·6	+ 2·9	32	0	3	0·58	−0·66	15	23
	Plymouth	52	34	49·3	41·4	45·4	+ 2·4	26	2	3	0·49	−0·39	20	31
	Prawle Point	53	35	49·0	41·9	45·5	+ 2·6	25	0	4	0·22	?	*	*
9. IRELAND, N.	Malin Head	51	33	46·3	36·0	41·2	+ 0·9	12	24	5	2·06	?	*	*
	Londonderry	57	30	49·3	36·0	42·7	+ 2·1	30	17	6	1·87	+1·03	*	*
	Mullaghmore	52	32	48·0	37·1	42·6	+ 1·1	25	14	6	1·80	+0·95	*	*
	Belmullet	50	35	48·0	38·0	43·0	− 1·0	24	11	6	1·66	?	*	*
	Markree Castle	50	26	47·2	34·8	41·0	0·0	15	29	6	1·77	+1·04	23	37
	Brookeborough	50	26	47·2	34·2	40·7	+ 0·8	15	31	4	1·39	?	*	*
	Armagh	52	27	48·0	34·6	41·3	+ 1·2	17	30	5	0·65	0·00	19	31
	Donaghadee	53	29	47·4	34·7	41·1	+ 0·6	15	30	5	0·43	−0·25	*	*
	Edgeworthstown	51	27	47·6	33·9	40·8	+ 1·1	16	33	4	0·86	+0·11	*	*
10. IRELAND, S.	Dublin	56	31	49·6	37·7	43·7	+ 2·4	30	12	6	0·38	−0·17	22	35
	Parsonstown	53	27	49·6	34·7	42·2	+ 2·0	32	20	5	0·48	−0·18	21	33
	Kilkenny	56	25	50·6	34·6	42·6	+ 2·3	35	21	4	0·45	−0·32	*	*
	Waterford	51	31	48·3	37·1	42·7	+ 0·2	25	14	4	1·00	−0·08	*	*
	Roche's Point	51	37	49·4	42·4	45·9	+ 2·4	27	0	6	1·05	−0·12	*	*
	Valencia	53	35	51·6	41·4	46·5	+ 1·3	34	2	6	1·17	−0·19	15	23
	Killarney	54	30	50·8	39·3	45·1	+ 1·6	33	8	6	1·88	?	*	*
	Foynes	54	29	51·0	38·9	45·0	− 1·5	34	9	5	0·79	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	54	42	51·0	44·0	47·5	+ 1·5	39	0	4	0·40	−0·39	*	*
	Jersey (Noirmont)	51	36	48·1	41·4	44·8	+ 2·6	22	2	3	0·12	−0·57	26	39

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ☆ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY J. D. POTTER, 31, POULTRY, AND 11, KING STREET, TOWER HILL, AND E. STANFORD, 55, CHARING CROSS.

VOL. IV. No. 6.] *New Series.* WEEK ENDING MONDAY, 14TH FEBRUARY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

DISTRICTS. (See p. 24.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	53	20	43·7	34·6	39·2	1 above.	5	− 3	27	− 1	47	+11	193	− 1
1. SCOTLAND, EAST	54	19	42·8	29·4	36·2	1 below.	2	− 9	45	+13	57	+18	244	+ 2
2. ENGLAND, N.E.	43	19	39·1	29·9	34·5	5 below.	0	−11	53	+25	48	+11	256	+27
3. ENGLAND, EAST	45	23	38·8	29·8	34·3	6 below.	0	−14	54	+16	35	− 9	298	+51
4. MIDLAND COUNTIES	46	20	39·6	28·0	33·9	6 below.	0	−15	57	+30	54	0	294	+51
5. ENGLAND, SOUTH	44	24	38·5	30·4	34·5	7 below.	0	−16	53	+33	58	− 2	227	+33
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	48	18	41·9	31·5	36·7	3 below.	0	−12	37	+15	57	+ 5	188	+ 5
7. ENGLAND, N.W.	45	20	39·6	28·6	34·1	7 below.	0	−12	55	+33	46	− 3	231	+40
8. ENGLAND, S.W.	45	25	38·9	30·7	34·9	8 below.	0	−21	50	+39	78	−21	147	+33
9. IRELAND NORTH	50	20	42·8	32·0	37·4	3 below.	2	−14	36	+16	81	+ 7	172	+11
10. IRELAND, SOUTH	50	21	42·9	31·0	37·0	6 below.	3	−20	39	+27	118	− 2	130	+20
— CHANNEL ISLANDS	47	25	40·1	33·6	36·9	7 below.	0	−25	36	+32	91	−29	83	+22

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 24.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	3	1	6 less.	29	0	7·0	+ 2·1	14	23	47	+ 4	15	+ 1
1. SCOTLAND, EAST	3	1	6 less.	22	+ 2	3·2	− 0·7	18	29	91*	+19	28	+ 5
2. ENGLAND, N.E.	2	1	4 less.	19	− 2	1·9	− 1·9	23	35	81	+39	23	+11
3. ENGLAND, EAST	0	-	5 less.	15	− 7	1·7	− 1·0	41	62	104	+37	29	+10
4. MIDLAND COUNTIES	1	less than ½	6 less.	17	− 4	2·3	− 1·1	30	45	89	+33	25	+ 9
5. ENGLAND, SOUTH	1	less than ½	6 less.	16	− 5	2·1	− 1·6	22	32	74	+17	20	+ 4
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	1	less than ½	9 less.	23	− 3	5·9	− 0·1	21	32	69	+21	20	+ 6
7. ENGLAND, N.W.	1	less than ½	7 less.	20	− 3	3·0	− 1·5	30	46	83	+33	24	+ 9
8. ENGLAND, S.W.	0	-	10 less.	20	− 4	3·2	− 2·9	29	43	89	+20	24	+ 5
9. IRELAND, NORTH	1	less than ½	7 less.	21	− 6	4·0	− 0·5	26	40	82	+14	23	+ 3
10. IRELAND, SOUTH	0	-	9 less.	21	− 5	4·8	− 0·9	29	43	101	+22	28	+ 5
— CHANNEL ISLANDS	1	1	6 less.	21	− 5	2·9	− 1·8	21	31	139	+43	37	+11

General Remarks.

Weather has been in a fine and very dry condition generally, although a good deal of haze has prevailed at times.

Temperature has been slightly above the mean in "Scotland, N.", but below in all other districts, the deficit ranging from 1° in "Scotland, E." to as much as from 6° to 8° over the greater part of England, the south of Ireland, and in the "Channel Islands". The highest of the maxima, which were registered on irregular dates, varied between 43° in "England, N.E.", 50° in Ireland, 53° in "Scotland, N.", and 54° in "Scotland, E." The lowest of the minima, which were recorded at most stations during the earlier part of the week, ranged from 18° to 20° in Scotland, from 20° to 21° in Ireland, and from 19° to 25° over England.

Rainfall has been less than the mean in all districts; over the greater part of the Kingdom the amount has been scarcely appreciable, while in many places none whatever has fallen.

Bright sunshine has been more prevalent generally than for a long time past. In Scotland and the "Channel Islands" the percentage of the possible amount of duration ranged from 23 to 31, while over England and Ireland, where the percentage has been higher than during any week since that ending 20th September 1886, it ranged from 32 in "England, S." to 46 in "England, N.W." and to 62 in "England, E."

Depressions observed.—During the whole of this period the distribution of barometric pressure over our Islands and their neighbourhood was anticyclonic, and the only depressions which appeared in our area were observed to the northward of Scandinavia and over the shores of the Mediterranean. Moderate to fresh Easterly and North-Easterly breezes prevailed over the greater part of our Islands, but in the extreme north-west and north variable airs or light breezes from the South-Westward were most general.

* This value has been altered somewhat owing to the receipt of further information from Aberdeen.

A 50455. 350.—2/87. Wt. 44. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

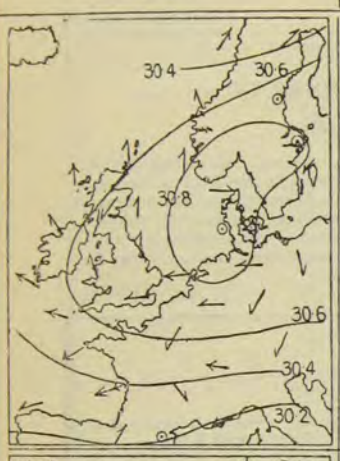
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, February 8.

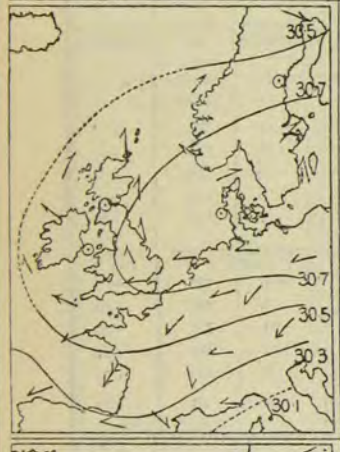
Weather fine over the greater part of Western Europe, but foggy or misty at several of the British stations. Snow falling later in the extreme south of France.

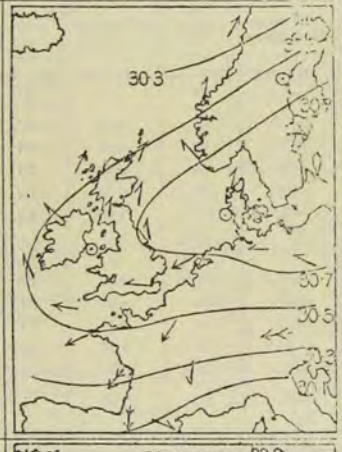
Temperature fallen, excepting in the north of Scandinavia; readings over our Islands ranging from 45° at Valencia and 43° in the extreme north of Scotland to 24° at York. Frost occurring in most places at night.

Wind South-Easterly or Southerly on our western and northern coasts and South-Westerly in Scandinavia, but Easterly or North-Easterly elsewhere; fresh or strong in force over the Bay of Biscay and the southern parts of our Islands.

Sea rather rough on our south-west coasts, and also at Stornoway.

Barometer rising at all but the Scandinavian and southern French stations. Distribution of pressure anticyclonic, the central portion of the system (with readings exceeding 30·8 ins.) being found over the North Sea, Denmark, and the south of Scandinavia.





Wednesday, February 9.

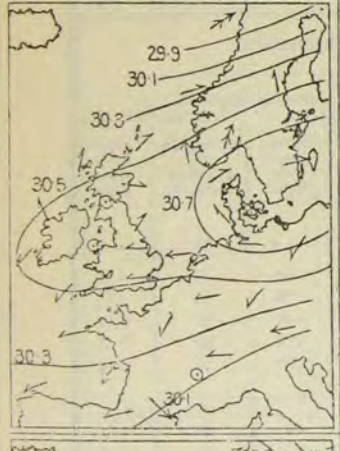
Weather fine generally, but dull over central England and also at some of the Swedish stations. Sky clearing over central England later.

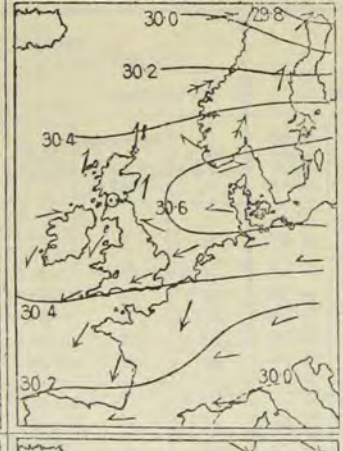
Temperature risen several degrees in Sweden and slightly over our midland counties, but fallen elsewhere; readings over our Islands ranging from 44° in the south of Ireland to 22° at Leith. Frost occurring in most places at night.

Wind South-Easterly in Ireland, Southerly in Scotland, and variable on the eastern shores of the North Sea, but Easterly or North-Easterly elsewhere; light to fresh in force generally. Subsequently increasing to gale from North-East over the Bay of Biscay.

Sea rough at Stornoway and rather rough on our south-west coasts, but moderate to smooth elsewhere.

Barometer falling at most stations. Large anticyclonic system extending from the Baltic and south of Sweden to central England, with relatively low readings over Spain and the extreme south of France. Fall continuing all day.





Thursday, February 10.

Weather fine generally, but dull on our extreme north and north-west coasts, as well as at some of the Scandinavian stations. Rain falling later in the extreme north of Scotland.

Temperature risen a little in Scotland, but fallen elsewhere; readings over our Islands ranging from 43° at Stornoway and 42° in the Shetlands to 25° at Liverpool. Frost occurring in most places at night.

Wind South-Westerly in Scotland and Scandinavia, but Easterly or North-Easterly elsewhere, fresh in force in the Channel and Bay of Biscay, and strong to a gale at Bodö.

Sea rough off the west of Norway, and rather rough in the English Channel as well as at Yarmouth.

Barometer rising generally. Anticyclone (with readings exceeding 30·7 ins.) lying over the Baltic, Denmark, and North Germany, with a large and rather deep depression off the north of Norway. Depression subsequently moving eastwards, and barometer rising again at the Norwegian stations.

Friday, February 11.

Weather fair generally, but dull at our extreme northern and also at some of the southern stations, with snow in south Germany, and the extreme south of France, sleet at Hurst Castle, and drizzling rain in the north-east of Scotland. Snow falling later in the extreme south of England.

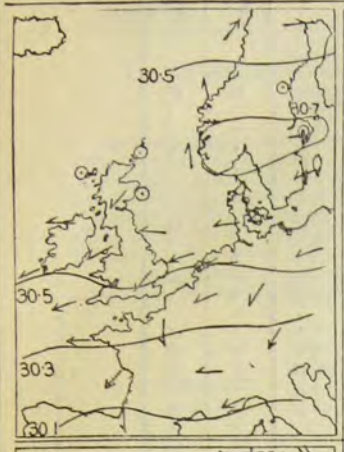
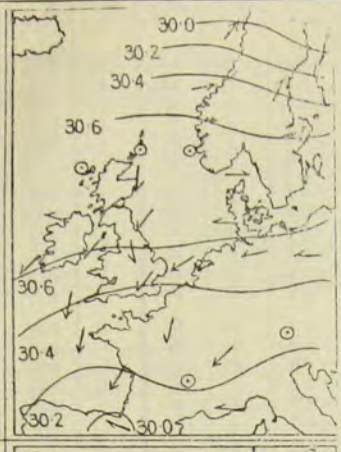
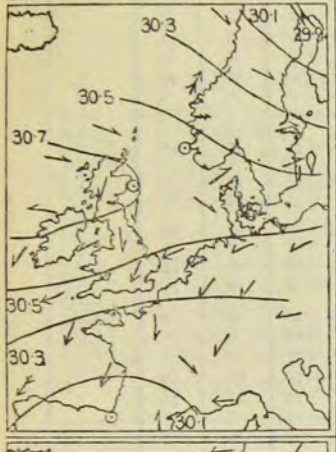
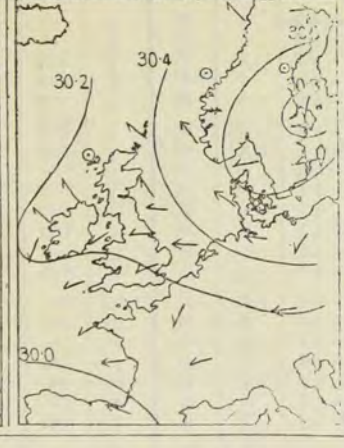
Temperature fallen a little in Scandinavia, but risen in most other localities; readings over our Islands ranging from 42° at Stornoway, Wick, and Malin Head, to 26° at Parsonstown. Frost occurring in most places at night.

Wind variable on our northern coasts and North-Westerly in Sweden, but Easterly or North-Easterly elsewhere; fresh or strong in force in the east and south-west of England.

Sea rough at Yarmouth and rather rough at Spurn Head and Scilly, but moderate to smooth elsewhere.

Barometer rising in Scotland and the north of Scandinavia, but falling elsewhere. Large anticyclone lying over the greater part of our Islands and the North Sea, with a shallow depression off the south of France. Small depressions subsequently moving westwards over the north of France.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather during the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, February 12.** *Weather* fine generally, but dull over central and western England and foggy at some of the Scotch stations. Sky clearing over Ireland later. Bright aurora seen at many of our northern stations at night. *Temperature* risen a little in most places; readings over our Islands ranging from 44° at Stornoway to 20° at Parsonstown. Frost occurring in most places at night. *Wind* calm in Scotland and South-Westerly in the north of Scandinavia, but Easterly or North-Easterly elsewhere; strong in force over the Channel and Bay of Biscay. *Sea* rough at many of our southern and eastern stations. *Barometer* falling a little in Sweden and France, but rising elsewhere. Anticyclonic band with readings above 30·7 ins. lying over the south of Scandinavia and relatively low pressure off the south of France. Large depression subsequently appearing over the north of Scandinavia.	
		**Sunday, February 13.** *Weather* fair generally, but dull at several of the French stations, with snow at Biarritz and also at Haparanda. Showers falling later in the north and east of Scotland. *Temperature* fallen slightly over the southern parts of England and Norway, but risen elsewhere; readings over our Islands ranging from 44° at Sumburgh Head and 43° at Malin Head to 29° at York. Frost occurring in many places at night. *Wind* light to moderate from West or North-West over Scandinavia and the north of Scotland, but Easterly or North-Easterly elsewhere, with strong breezes at some of our southern stations. Subsequently veering to the Northward over Scotland and also in Sweden. *Sea* rough at Prawle Point and rather rough off the east of England, but moderate to smooth elsewhere. *Barometer* rising at all but the Scandinavian and southern French stations. Pressure highest (30·7 ins. and upwards) in Scotland, with a depression over the north of Sweden, and another over the Pyrenees. Former disturbance subsequently moving quickly south-eastward, and new high pressure system appearing over the north of Scandinavia.	
		**Monday, February 14.** *Weather* fair generally, but dull at several of our western, northern, and central stations, a little rain falling later in the north of our Islands. *Temperature* changed little and irregularly; readings over the United Kingdom ranging from 43° at Malin Head to 34° at Prawle Point, Hurst Castle, and Oxford. Frost occurring in many parts of the kingdom at night. *Wind* North-Westerly in the east of Scotland, and South-Easterly in the west of Norway, but Easterly or North-Easterly elsewhere; moderate or fresh in force generally. *Sea* rather rough at Prawle Point, but moderate to smooth elsewhere. *Barometer* falling at all but the Scandinavian stations. Pressure highest (30·6 ins. and upwards) over Sweden, but relatively high (30·4 ins. and upwards) off the west of Scotland, with a shallow depression over Spain. Slight rise taking place on our east coasts later.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 21 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	46	37	44·6	38·9	41·8	+ 2·8	7	13	4	0·40	−0·42	*	*
	Stornoway	53	35	47·1	38·6	42·9	+ 3·6	21	10	2	0·08	−0·93	14	23
	Wick	48	27	44·7	35·0	39·9	+ 1·2	8	27	4	0·19	−0·31	*	*
	Lairg ℳ	46	20	40·9	29·7	35·3	− 2·0	0	47	3	0·07	−0·73	*	*
	Glencarron ℳ	47	27	43·1	32·6	37·9	+ 0·2	3	34	1	0·03	?	*	*
	Fort Augustus ℳ	45	28	41·9	32·7	37·3	− 1·5	0	33	2	0·04	?	*	*
1. SCOTLAND, E.	Nairn	48	27	44·0	33·3	38·7	0·0	6	32	2	0·09	−0·30	*	*
	Aberdeen	45	22	42·4	30·6	36·5	− 1·7	1	40	5	0·20	−0·41	18	29
	Braemar ℳ	46	19	42·5	29·0	35·8	− 1·3	1	46	3	0·11	−0·70	*	*
	Ochtertyre ℳ	54	20	45·9	27·7	36·8	− 1·1	11	53	2	0·03	−1·11	*	*
	Leith	46	21	42·0	27·9	35·0	− 4·2	0	49	3	0·13	−0·28	*	*
	Marchmont ℳ	42	20	40·1	28·0	34·1	− 2·7	0	55	3	0·13	−0·51	*	*
2. ENGLAND, N.E.	Alnwick Castle	40	19	37·0	29·3	33·2	− 5·8	0	62	3	0·11	−0·47	*	*
	Durham	41	19	38·0	27·1	32·6	− 6·4	0	66	3	0·12	−0·33	19	29
	Shields	43	24	39·3	30·1	34·7	− 4·6	0	51	2	0·08	−0·33	*	*
	Scarborough ℳ	42	30	39·8	33·7	36·8	− 2·2	0	36	2	0·13	−0·32	*	*
	York	43	24	40·6	25·4	33·0	− 6·3	0	63	2	0·12	−0·36	26	40
	Spurn Head	42	29	40·9	33·7	36·9	− 2·3	0	36	1	0·05	?	*	*
3. ENGLAND, E.	Hillington ℳ	42	23	39·4	29·0	34·2	− 5·0	0	55	0	—	−0·48	44	67
	Yarmouth	38	30	37·0	32·3	34·7	− 5·6	0	51	0	—	−0·50	*	*
	Geldeston	40	30	38·3	31·8	35·1	− 5·5	0	48	0	—	−0·41	41	61
	Cambridge	45	24	41·1	26·6	33·9	− 6·2	0	57	0	—	−0·40	38	57
	Rothamsted	41	26	37·8	29·0	33·4	− 6·2	0	60	0	—	−0·58	*	*
	Ingatestone	43	27	39·0	29·9	34·5	− 5·5	0	53	0	—	−0·40	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	43	22	40·3	26·4	33·4	− 6·7	0	60	2	0·08	−0·34	31	47
	Loughborough	45	25	42·9	28·4	35·7	− 4·0	3	49	1	0·02	−0·47	*	*
	Leicester	46	26	41·3	28·7	35·0	− 4·4	0	49	1	0·02	−0·49	30	45
	Cheadle ℳ	42	26	38·3	28·2	33·3	− 5·7	0	61	1	0·03	−0·68	*	*
	Churchstoke ℳ	40	20	37·1	25·4	31·3	− 9·2	0	75	1	0·02	−0·70	28	42
	Hereford ℳ	42	26	38·9	29·6	34·3	− 6·4	0	54	0	—	−0·60	*	*
	Cirencester	41	27	38·4	28·7	33·6	− 6·2	0	59	0	—	−0·70	31	46
	Oxford	43	25	39·9	28·9	34·4	− 6·1	0	53	1	0·01	−0·51	29	43
5. ENGLAND, S.	London†	44	29	40·1	31·1	35·6	− 5·4	0	45	0	—	−0·48	16	24
	Strathfield Turgiss ℳ	43	24	38·7	28·6	33·7	− 7·1	0	58	0	—	−0·55	*	*
	Dungeness	43	27	38·9	32·0	35·5	− 6·2	0	46	1	0·02	−0·51	*	*
	Hastings (St. Leonard's)	41	27	37·1	31·2	34·2	− 7·3	0	55	2	0·04	−0·51	27	40
	Southampton	44	28	39·2	29·7	34·5	− 6·6	0	53	0	—	−0·72	22	33
	Hurst Castle	42	30	38·9	31·6	35·3	− 6·9	0	47	1	0·03	−0·63	*	*
	Stowell ℳ	40	26	36·8	28·5	32·7	− 8·3	0	65	0	—	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	48	31	43·9	34·3	39·1	− 0·7	5	28	0	—	−2·15	*	*
	Glasgow	44	26	40·7	32·2	36·5	− 2·7	0	39	0	—	−0·95	6	9
	Ardrossan	46	27	42·7	31·1	36·9	− 2·6	2	39	1	0·01	−0·86	*	*
	Glenlee S	45	18	40·6	26·6	33·6	− 4·4	0	59	1	0·01	?	*	*
	Douglas (Isle of Man)	46	27	41·5	33·2	37·4	− 3·6	0	32	1	0·03	−0·94	35	54
7. ENGLAND, N.W.	Newton Reigny (Penrith)	43	20	39·9	25·4	32·7	− 5·6	0	65	1	0·04	−0·76	28	43
	Barrow-in-Furness	45	25	40·6	29·6	35·1	− 5·9	0	48	0	—	−0·70	*	*
	Stonyhurst	41	23	37·8	27·9	32·9	− 6·6	0	64	0	—	−0·97	26	40
	Blackpool ℳ	44	20	39·3	26·3	32·8	− 8·3	0	64	0	—	−0·63	24	37
	Manchester	42	24	38·6	28·9	33·8	− 6·2	0	57	1	0·05	−0·57	*	*
	Liverpool Obsy (Bidston)	42	25	38·0	28·3	33·2	− 8·1	0	62	1	0·03	−0·44	*	*
	Llandudno ℳ	43	25	40·7	30·6	35·7	− 6·6	0	44	1	0·02	−0·59	41	62
	Holyhead	45	24	41·7	31·9	36·8	− 6·2	0	36	1	0·02	−0·72	*	*
8. ENGLAND, S.W.	Llandovery	42	25	39·4	28·3	33·9	− 7·6	0	57	0	—	−1·17	*	*
	Pembroke	42	28	39·3	31·4	35·4	− 8·1	0	46	0	—	−0·81	36	54
	Arlington (N. Devon)	41	26	37·9	28·9	33·4	− 7·9	0	60	0	—	−1·25	*	*
	Cullompton ℳ	42	27	37·6	29·2	33·4	− 8·6	0	60	1	0·01	−0·82	23	34
	Falmouth	44	29	39·7	33·0	36·4	− 7·6	0	39	0	—	−1·17	23	34
	Plymouth	44	30	39·6	31·6	35·6	− 7·9	0	45	0	—	−0·85	34	50
	Prawle Point	45	30	39·1	32·7	35·9	− 7·2	0	43	1	0·02	?	*	*
9. IRELAND, N.	Malin Head	45	33	42·7	37·0	39·9	− 0·5	2	18	0	—	?	*	*
	Londonderry	50	30	44·8	32·4	38·6	− 2·0	8	36	1	0·01	−0·74	*	*
	Mullaghmore	45	34	43·0	35·1	39·1	− 2·0	3	25	2	0·09	−0·79	*	*
	Belmullet	46	32	44·6	34·7	39·7	− 3·9	7	28	1	0·02	?	*	*
	Markree Castle	45	24	42·2	28·8	35·5	− 5·0	1	46	2	0·05	−0·65	21	32
	Brookeborough	45	24	42·8	27·9	35·4	− 4·4	2	50	0	—	?	*	*
	Armagh	43	23	41·0	28·8	34·9	− 5·9	0	50	2	0·03	−0·62	31	48
	Donaghadee	45	29	43·3	35·6	39·5	− 1·5	4	24	1	0·01	−0·67	*	*
	Edgeworthstown	43	20	41·1	27·7	34·4	− 5·6	0	53	0	—	−0·80	*	*
10. IRELAND, S.	Dublin	45	26	42·0	53·3	37·7	− 4·3	0	30	1	0·02	−0·56	31	47
	Parsonstown	42	24	41·1	28·4	34·8	− 6·0	0	50	1	0·04	−0·58	24	36
	Kilkenny	50	21	42·7	29·6	36·2	− 4·8	2	44	0	—	−0·75	*	*
	Waterford	46	26	43·1	32·6	37·9	− 5·6	3	34	1	0·02	−0·98	*	*
	Roche's Point	50	30	44·3	33·3	38·8	− 5·2	6	32	0	—	−1·25	*	*
	Valentia	47	28	44·6	34·1	39·4	− 5·9	7	30	0	—	−1·32	31	46
	Killarney	50	22	43·0	26·9	35·0	− 8·6	3	54	0	—	?	*	*
	Foynes	48	28	42·7	30·0	36·4	− 5·4	2	43	0	—	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	47	33	42·4	36·1	39·3	− 6·7	1	21	0	—	−0·75	*	*
	Jersey (Noirmont)	42	25	37·7	31·1	34·4	− 8·1	0	53	1	0·22	−0·46	21	31

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY J. D. POTTER, 31, POULTRY, AND 11, KING STREET, TOWER HILL, AND E. STANFORD, 55, CHARING CROSS.

VOL. IV. No. 7.] *New Series.* WEEK ENDING MONDAY, 21ST FEBRUARY, 1887. [*Price 4d.* [*Annual subscription, post paid,* £1 1s. 2d.

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 28.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	51	28	45·0	35·5	40·3	2 above.	8	− 1	25	− 3	54*	+12	218	− 4
	1. SCOTLAND, EAST	53	29	45·4	34·5	39·9	2 above.	10	− 2	28	− 3	67	+20	272	− 3
	2. ENGLAND, N.E.	52	28	44·2	33·8	39·0	1 below.	6	− 6	30	+ 2	54	+ 5	286	+34
	3. ENGLAND, EAST	50	16	42·7	29·7	36·2	4 below.	2	−13	44	+17	37	−24	342	+74
	4. MIDLAND COUNTIES	52	18	43·9	30·9	37·4	3 below.	5	−12	40	+16	59	−13	334	+72
	5. ENGLAND, SOUTH	50	20	43·3	31·2	37·2	5 below.	4	−14	38	+19	62	−19	265	+59
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	53	27	44·8	37·2	41·0	1 above.	8	− 5	19	− 3	65	− 1	207	+ 3
	7. ENGLAND, N.W.	48	28	42·9	34·5	38·7	2 below.	3	−10	27	+ 6	51*	−12	257*	+50
	8. ENGLAND, S.W.	55	19	44·9	32·6	38·8	4 below.	8	−14	35	+24	86	−39	182	+63
	9. IRELAND, NORTH	52	27	47·0	37·2	42·1	1 above.	21	+ 4	13	− 6	102	+13	185	+ 4
	10. IRELAND, SOUTH	55	26	48·4	36·6	42·6	0 (average).	27	+ 3	15	− 2	145	+ 2	145	+25
	— CHANNEL ISLANDS	49	32	44·7	37·9	41·3	3 below.	8	−18	16	+12	99	−52	99	+38

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 28.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	8	1 less.	34	0	7·8	+ 2·1	16	24	63	+ 5	16	+ 1
	1. SCOTLAND, EAST	3	1	6 less.	25	+ 1	3·3	− 1·2	12	18	103	+15	26	+ 3
	2. ENGLAND, N.E.	2	1	3 less.	21	− 4	2·0	− 2·3	19	29	100	+46	24	+11
	3. ENGLAND, EAST	4	3	2 less.	19	− 7	2·0	− 1·2	22	32	126	+44	29	+ 9
	4. MIDLAND COUNTIES	3	2	4 less.	20	− 6	2·5	− 1·5	17	24	106	+37	25	+ 9
	5. ENGLAND, SOUTH	3	3	3 less.	19	− 7	2·4	− 1·9	16	24	90	+19	21	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	5	7	5 less.	28	− 3	6·6	− 0·3	9	13	78	+18	19	+ 4
	7. ENGLAND, N.W.	3	3	4 less.	23	− 4	3·3	− 1·9	10	15	93	+32	22	+ 7
	8. ENGLAND, S.W.	3	2	8 less.	23	− 6	3·4	− 3·7	20	28	109	+26	25	+ 5
	9. IRELAND, NORTH	5	5	3 less.	26	− 6	4·5	− 0·7	13	20	95	+14	23	+ 3
	10. IRELAND, SOUTH	4	3	6 less.	25	− 7	5·1	− 1·5	15	22	116	+24	27	+ 5
	— CHANNEL ISLANDS	4	3	4 less.	25	− 7	3·2	− 2·2	22	31	161	+43	36	+ 9

General Remarks.

Weather has been less settled generally than that reported last week, the sky being cloudy or overcast, with occasional slight rain.

Temperature has been 1° or 2° above the mean in Scotland and over the greater part of Ireland, but over England and the "Channel Islands" it has varied from 1° to 5° below. The highest of the maxima, which were registered at most stations either on the 18th or 21st, ranged from 48° in "England, N.W." to 55° in "England, S.W." and "Ireland, S." The lowest of the minima were generally recorded on the 17th, when readings ranged from 16° in "England, E.", 18° in the "Midland Counties", and 19° in "England, S.W." to 29° in "Scotland, E." and 32° in the "Channel Islands".

Rainfall has been less than the mean in all districts.

Bright sunshine shows a very general decrease, the percentages of the possible amount of duration ranging from 13 in "Scotland, W." to 31 in the "Channel Islands", and to 32 in "England, E."

Depressions observed.—During the earlier part of this period, barometric pressure was highest over the eastern parts of our area, while depressions skirted our extreme western and north-western coasts. During the 18th, however, some subsidiary disturbances passed over England and disappeared over Denmark. By the 19th an anticyclone had appeared over Ireland from the westward, but by the following day this had moved in a south-easterly direction to the Bay of Biscay and some large depressions were shown off our north-western and northern coasts, while some subsidiary disturbances again passed over England. Under these conditions moderate to fresh South-Westerly to Southerly winds were most general in the west and north; but in the south and south-east moderate Easterly breezes prevailed during the earlier days of the week, and subsequently light Northerly or North-Westerly winds.

* These values have been altered owing to the receipt of further information.

A 50551. 350.—2/87. Wt. 44. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

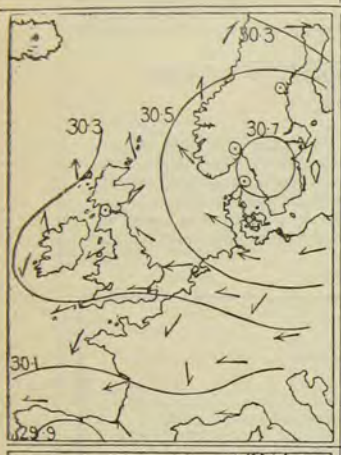
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, February 15.

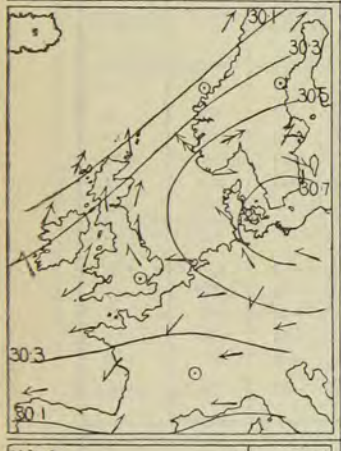
Weather fair over the greater part of Western Europe, but dull and misty at many of our southern stations.

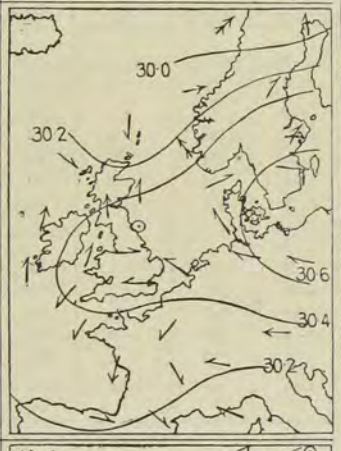
Temperature fallen a little on our western and northern coasts, and also in the south of Scandinavia, but risen elsewhere; readings over our Islands ranging from 42° at Stornoway to 28° at Parsonstown. Frost occurring in most places at night.

Wind moderate Southerly on our northern coasts and South-Westerly in Scandinavia, but Easterly or North-Easterly elsewhere; fresh or strong in force over the east of England and the Bay of Biscay.

Sea rather rough at Stornoway and Yarmouth, but moderate to smooth elsewhere.

Barometer falling on our north-west coasts, and also in Sweden, but rising in most other localities. Anticyclone lying over the south of Sweden, with a large but shallow depression over Spain. Depression subsequently approaching our extreme north-west coasts.





Wednesday, February 16.

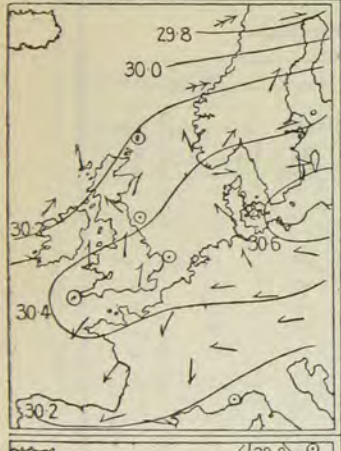
Weather fine over the greater part of Western Europe, but foggy over central England and rainy at Stornoway and Belmullet as well as at Lisbon. Rain falling later at most of the Irish and Scotch stations.

Temperature risen a little in Sweden and the west and north of our Islands, but fallen elsewhere; readings over the United Kingdom ranging from 44° at Belmullet and Valencia to 23° at Cambridge. Thick hoar frost over England at night.

Wind moderate Easterly or North-Easterly over Germany, the greater part of France, and the south of our Islands, but Southerly or South-Westerly elsewhere; strong to a gale at Stornoway and Belmullet. Subsequently veering to North-West in the west of Scotland.

Sea high at Stornoway, but moderate to smooth elsewhere.

Barometer falling at our western, northern, and the Scandinavian stations, but rising elsewhere. Anticyclone lying over the Baltic and North Germany, with a large depression to the north-westward of our Islands. Depression subsequently moving north-eastwards, and barometer rising again in west.



Thursday, February 17.

Weather dull and misty on our western and northern coasts, with rain in the south of Ireland, but fair in most other localities, with, however, thick fog over England. Rain falling later at most of our western and northern stations.

Temperature risen in Scandinavia and the west and north of our Islands, but fallen elsewhere; readings over the United Kingdom ranging from 51° at Valencia to 21° at Cambridge. Brisk rise taking place over England later.

Wind continuing Easterly over Germany, France, and the south of England, but Southerly or South-Westerly elsewhere, strong to a gale in force in the west of Norway. South-Westerly breezes subsequently extending to the south of England.

Sea rough off the west of Norway, but moderate to smooth elsewhere.

Barometer falling at all but the French stations. Anticyclone still lying over the Baltic and North Germany, with depression of previous day over the north of Scandinavia, but new disturbance off the west of Scotland. Latter system subsequently moving slowly northwards.

Friday, February 18.

Weather fine in Germany, France, the Netherlands, and Denmark, but rainy in many parts of our Islands. Improvement taking place in west and north later, but thick fog experienced in the south-east of England at night.

Temperature fallen a little in the west of Ireland as well as in France, but risen elsewhere; readings over the United Kingdom ranging from 47° at Scilly and 46° at Belmullet and Valencia to 33° at Yarmouth.

Wind moderate to strong from the northward on our extreme western and northern coasts, but moderate from South-West in the east and south-east. Light Easterly breezes still prevailing over the greater part of France. Subsequently veering to the North-Westward or Northward at all but our extreme south-eastern stations.

Sea rather rough off the west and north of Ireland.

Barometer falling at all but our western and northern stations. Anticyclonic systems lying respectively over North Germany and the north-west of Spain, with a large depression off the west of Ireland, and some subsidiary disturbance over Great Britain. Depressions subsequently moving away eastwards.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

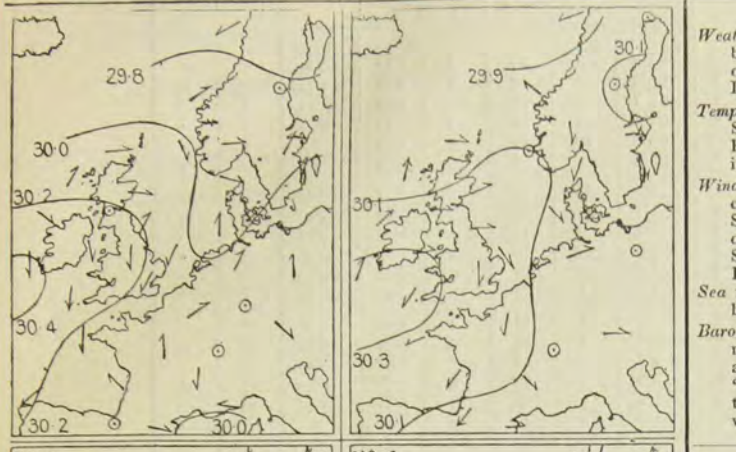
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Saturday, February 19.

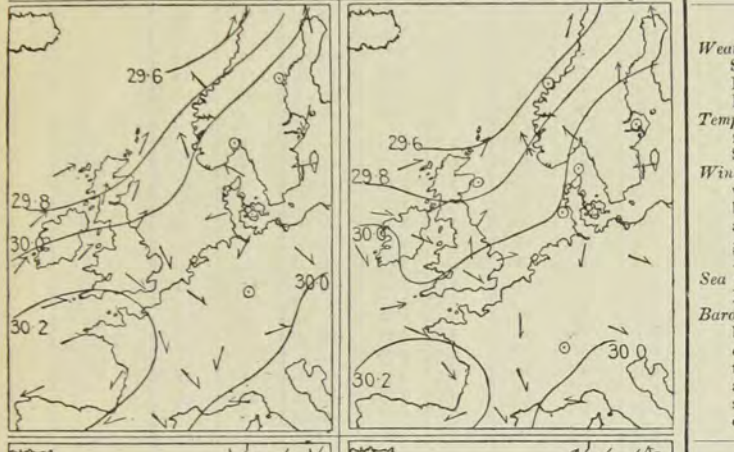
Weather fair over the greater part of western Europe, but with local showers over our Islands. Subsequently becoming dull on our extreme western coasts. Bright aurora seen in the north of Scotland at night.

Temperature fallen a few degrees over our Islands and Sweden, but risen elsewhere; readings over the United Kingdom ranging from 46° at Scilly to 34° at Barrow-in-Furness.

Wind light South-Westerly on our extreme northern coasts and also on the eastern shores of the North Sea, but moderate to fresh from North or North-East over the south of our Islands and north of France. Subsequently backing to South-West in the west of Ireland.

Sea rather rough at Cape Gris Nez, Brest, and Corunna, but moderate to smooth elsewhere.

Barometer rising over the United Kingdom, but falling at many of the Continental stations. Anticyclone appearing off the south-west of Ireland with shallow "v-shaped" depressions over the eastern shores of the North Sea. Slight fall taking place later in the west and north of our Islands.



Sunday, February 20.

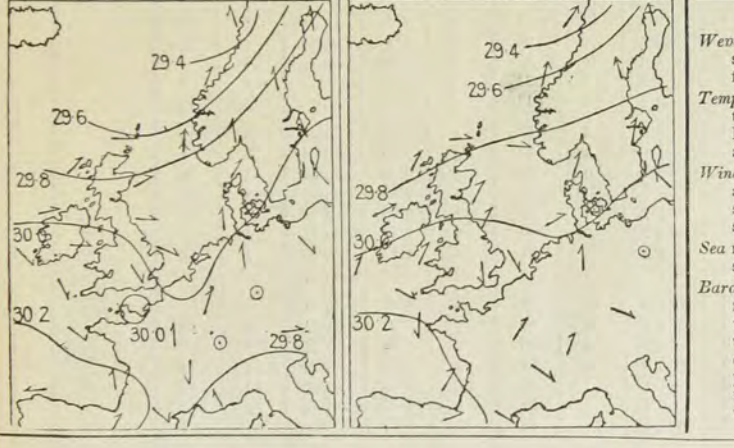
Weather cloudy in all districts excepting the east of Scotland, with rain at many of our western stations. Rain extending later to all parts of the United Kingdom.

Temperature risen generally; readings over our Islands ranging from 48° at Valencia to 34° at Loughborough. Slight frost occurring over central England at night.

Wind fresh or strong from South or South-West in the west and north of our Islands and the west of Norway, but light from North-West in the south of England and moderate from North or North-East over the greater part of France. Subsequently veering to North-West on our western coasts.

Sea rough at Valencia and rather rough at Stornoway and Mullaghmore, but moderate to smooth elsewhere.

Barometer falling in our Islands and the west of Norway, but rising elsewhere. Anticyclone lying over the Bay of Biscay and the west of France, and area of relatively high pressure over Denmark and Sweden, with a large depression to the westward of Norway. Shallow subsidiary disturbances subsequently moving eastwards over our Islands.



Monday, February 21.

Weather fine over the greater parts of our Islands, but showery on our extreme north-west coasts. Showers falling later at some of our northern stations.

Temperature fallen in our Islands, but risen at most of the continental stations; readings over the United Kingdom ranging from 45° at Scilly and Jersey to 35° at York and Loughboro'.

Wind moderate South-Westerly on our northern coasts, and Southerly over Scandinavia. Denmark, and the south-west of France, but light north-westerly in the south of our Islands.

Sea rather rough off the west of Norway, but moderate to smooth elsewhere.

Barometer rising in the west and north of our Islands, but falling elsewhere. Pressure highest over Spain and the south-west of France, with a large depression off the west of Norway, and some subsidiary disturbances over the North Sea and the English Channel. Depressions subsequently moving away eastwards, but new fall of barometer setting in on our extreme western coasts.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 25 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	47	34	44·7	36·9	40·8	+ 1·8	8	20	4	1·13	+0·31	*	*
	Stornoway	49	29	46·7	36·6	41·7	+ 2·2	13	23	7	0·83	−0·14	16	24
	Wick	48	32	45·3	36·0	40·7	+ 1·7	9	24	4	0·26	−0·24	*	*
	Lairg ℌ	51	28	44·0	33·3	38·7	+ 1·3	6	32	5	0·29	−0·50	*	*
	Glencarron ℌ	51	32	45·6	35·6	40·6	+ 2·6	10	25	5	1·90	?	*	*
	Fort Augustus ℌ	48	33	43·6	34·7	39·2	+ 0·2	4	27	5	0·55	?	*	*
1. SCOTLAND, E.	Nairn	53	31	48·0	35·0	41·5	+ 2·4	17	29	3	0·14	−0·26	*	*
	Aberdeen	50	33	45·6	35·1	40·4	+ 1·7	10	27	4	0·13	−0·48	12	18
	Braemar ℌ	45	31	42·0	34·4	38·2	+ 3·2	0	27	4	0·09	−0·71	*	*
	Ochtertyre ℌ	53	30	46·6	34·6	40·6	+ 2·6	13	29	3	0·06	−0·96	*	*
	Leith	51	29	46·6	34·6	40·6	+ 0·9	13	29	2	0·02	−0·38	*	*
	Marchmont ℌ	50	31	43·4	33·0	38·2	+ 0·8	4	32	1	0·03	−0·59	*	*
2. ENGLAND, N.E.	Alnwick Castle	50	31	44·4	35·4	39·9	+ 0·9	7	25	2	0·05	−0·53	*	*
	Durham	50	28	44·3	33·5	38·9	− 0·3	6	31	2	0·13	−0·32	19	28
	Shields	51	30	45·6	33·6	39·6	− 0·2	10	32	1	0·04	−0·36	*	*
	Scarborough ℳ	49	31	43·7	35·1	39·4	− 0·1	5	25	2	0·13	−0·32	*	*
	York	52	29	44·9	31·4	38·2	− 1·6	8	39	3	0·20	−0·26	20	29
	Spurn Head	45	29	42·0	34·0	38·0	− 1·7	0	28	4	0·31	?	*	*
3. ENGLAND, E.	Hillington ℳ	46	17	43·0	29·0	36·0	− 3·9	3	46	4	0·30	−0·18	22	32
	Yarmouth	45	25	40·4	32·0	36·2	− 4·7	0	41	4	0·23	−0·27	*	*
	Geldeston	50	17	43·4	29·1	36·3	− 4·7	4	46	4	0·23	−0·19	25	36
	Cambridge	49	16	44·6	27·3	36·0	− 4·8	7	54	3	0·36	−0·04	20	29
	Rothamsted	46	18	42·3	30·4	35·4	− 3·6	1	41	3	0·39	−0·19	*	*
	Ingatestone	47	20	42·7	30·1	36·4	− 4·6	2	42	3	0·28	−0·12	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	50	27	44·6	31·3	38·0	− 2·5	7	40	4	0·16	−0·26	20	29
	Loughborough	50	22	45·4	29·3	37·4	− 2·8	10	47	3	0·11	−0·39	*	*
	Leicester	51	23	45·1	30·3	37·7	− 2·5	9	43	3	0·16	−0·34	13	19
	Cheadle ℳ	45	27	42·0	31·9	37·0	− 2·7	0	35	2	0·08	−0·62	*	*
	Churchstoke ℳ	51	25	43·8	32·6	38·2	− 2·5	5	34	2	0·08	−0·62	17	25
	Hereford ℳ	52	23	45·5	31·8	38·7	− 2·5	10	39	3	0·10	−0·50	*	*
	Cirencester	49	18	42·3	29·3	35·8	− 4·3	1	45	4	0·20	−0·50	20	29
	Oxford	47	21	42·3	30·3	36·3	− 4·6	1	41	3	0·28	−0·23	14	20
5. ENGLAND, S.	London†	47	20	42·9	29·9	36·4	− 5·2	3	43	3	0·26	−0·21	6	9
	Strathfield Turgiss ℳ	48	21	43·3	30·1	36·7	− 4·8	4	43	3	0·39	−0·16	*	*
	Dungeness	46	21	41·9	31·4	36·7	− 5·4	0	37	3	0·24	−0·28	*	*
	Hastings (St. Leonard's)	47	26	42·7	33·1	37·9	− 4·1	2	32	3	0·26	−0·26	23	33
	Southampton	50	23	44·9	31·8	38·4	− 3·3	8	38	3	0·38	−0·32	20	29
	Hurst Castle	49	22	44·1	30·9	37·5	− 5·1	6	40	3	0·37	−0·26	*	*
	Stowell ℳ	48	21	43·1	30·9	37·0	− 4·2	3	40	3	0·30	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	53	37	46·6	39·5	43·1	+ 3·1	18	7	6	2·02	−0·13	*	*
	Glasgow	50	33	43·8	36·3	40·1	+ 0·5	5	22	4	0·34	−0·57	7	10
	Ardrossan	49	31	45·4	37·1	41·3	+ 1·6	10	20	5	0·33	−0·52	*	*
	Glenlee ℌ	49	27	43·7	34·9	39·3	+ 1·1	5	26	5	0·38	?	*	*
	Douglas (Isle of Man)	48	36	44·7	38·0	41·4	− 0·1	8	16	4	0·62	−0·30	10	15
7. ENGLAND, N.W.	Newton Reigny (Penrith)	47	28	42·9	33·3	38·1	− 0·6	3	31	4	0·08	−0·67	10	15
	Barrow-in-Furness	46	31	42·4	33·6	38·0	− 3·4	1	30	4	0·45	−0·25	*	*
	Stonyhurst	46	29	41·4	33·6	37·5	− 2·2	0	32	2	0·46	−0·49	14	21
	Blackpool ℳ	45	28	41·7	33·1	37·4	− 4·1	0	32	3	0·30	−0·31	10	15
	Manchester	47	28	42·1	33·4	37·8	− 2·7	0	31	3	0·26	−0·34	*	*
	Liverpool Obsy (Bidston)	46	30	42·9	33·7	38·3	− 3·2	3	30	3	0·11	−0·34	*	*
	Llandudno ℳ	48	30	44·3	36·6	40·5	− 2·1	6	21	2	0·13	−0·46	7	10
	Holyhead	48	33	45·1	38·4	41·8	− 1·2	9	15	3	0·24	−0·46	*	*
8. ENGLAND, S.W.	Llandovery	52	22	45·7	28·6	37·2	− 4·8	10	50	4	0·26	−0·86	*	*
	Pembroke	48	33	45·3	37·0	41·2	− 2·7	9	20	2	0·20	−0·58	13	19
	Arlington (N. Devon)	47	21	43·3	30·7	37·0	− 4·0	4	40	3	0·43	−0·81	*	*
	Cullompton ℳ	51	19	45·3	31·5	38·4	− 3·6	9	39	3	0·11	−0·72	24	34
	Falmouth	48	29	44·1	35·5	39·8	− 4·1	6	24	4	0·14	−0·96	16	23
	Plymouth	50	23	44·4	31·9	38·2	− 5·6	7	37	2	0·16	−0·66	25	35
	Prawle Point	55	28	46·4	33·3	39·9	− 3·4	12	34	2	0·24	?	*	*
9. IRELAND, N.	Malin Head	49	33	45·9	39·1	42·5	+ 1·9	16	8	6	0·41	?	*	*
	Londonderry	52	31	48·5	36·6	42·6	+ 1·9	27	15	6	0·44	−0·26	*	*
	Mullaghmore	52	35	48·7	39·3	44·0	+ 2·9	25	8	6	0·68	−0·21	*	*
	Belmullet	50	38	48·0	41·7	44·9	+ 1·5	22	1	6	0·70	?	*	*
	Markree Castle	52	30	47·0	36·2	41·6	+ 1·1	14	24	6	0·54	−0·13	16	24
	Brookeborough	50	30	45·9	35·5	40·7	+ 0·9	11	25	2	0·32	?	*	*
	Armagh	51	27	46·5	35·0	40·8	− 0·5	13	28	3	0·21	−0·43	10	15
	Donaghadee	49	33	46·3	37·1	41·7	+ 0·5	12	20	3	0·20	−0·46	*	*
	Edgeworthstown	51	27	46·4	34·4	40·4	+ 0·3	12	30	4	0·52	−0·30	*	*
10. IRELAND, S.	Dublin	52	29	47·1	36·6	41·9	− 0·3	14	23	3	0·11	−0·47	8	12
	Parsonstown	52	26	47·1	33·6	40·4	− 0·7	14	33	3	0·26	−0·34	16	23
	Kilkenny	55	27	49·9	35·6	42·8	+ 1·3	32	18	1	0·19	−0·52	*	*
	Waterford	51	29	47·3	36·6	42·0	− 1·9	15	15	3	0·20	−0·72	*	*
	Roche's Point	50	32	47·7	37·7	42·7	− 1·6	23	12	4	0·30	−0·86	*	*
	Valencia	53	31	50·3	39·0	44·7	− 0·6	32	8	6	0·87	−0·43	21	30
	Killarney	53	27	49·1	35·4	42·3	− 1·4	30	18	5	0·37	?	*	*
	Foynes	54	30	49·0	38·3	43·7	+ 1·7	27	10	4	0·23	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	49	35	46·0	39·6	42·8	− 3·2	16	7	4	0·19	−0·65	*	*
	Jersey (Noirmont)	46	32	43·4	36·1	39·8	− 2·7	4	22	4	0·44	−0·23	22	31

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 8.] *New Series.* WEEK ENDING MONDAY, 28TH FEBRUARY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 32.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	57	31	49·3	40·0	44·7	6 above.	27	+18	6	−23	81	+30	224	−31
	1. SCOTLAND, EAST	59	31	51·6	38·7	45·1	7 above.	36	+23	9	−22	103	+39	281	−26
	2. ENGLAND, N.E.	59	30	51·8	37·5	44·7	5 below.	38	+25	13	−15	92	+26	299	+20
	3. ENGLAND, EAST	58	23	50·1	33·6	41·9	1 above.	23	+ 6	35	+ 8	60	−20	377	+83
	4. MIDLAND COUNTIES	58	23	52·0	34·3	43·1	2 above.	40	+21	22	− 5	99	+ 7	356	+67
	5. ENGLAND, SOUTH	56	25	49·6	35·9	42·7	1 above.	31	+11	17	− 3	93	− 7	282	+56
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	55	29	48·9	40·1	44·5	5 above.	25	+11	5	−18	90	+12	212	−16
	7. ENGLAND, N.W.	60	23	50·3	38·5	44·4	3 above.	32	+19	10	− 9	83	+ 8	267	+37
	8. ENGLAND, S.W.	61	26	49·7	38·9	44·4	1 above.	30	+ 8	9	− 3	116	−30	191	+57
	9. IRELAND NORTH	56	31	52·0	41·1	46·6	5 above.	36	+18	3	−16	138	+31	188	−11
	10. IRELAND, SOUTH	57	32	53·1	42·3	47·7	5 above.	40	+15	0	−17	185	+19	145	+ 9
	— CHANNEL ISLANDS	54	35	50·2	42·1	46·2	2 above.	29	+ 3	0	− 4	128	−48	90	+33

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 32.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	18	11 more.	39	0	9·6	+ 3·2	12	17	75	+ 1	16	0
	1. SCOTLAND, EAST	2	3	3 less.	27	− 1	3·6	− 1·5	13	18	116	− 2	25	− 1
	2. ENGLAND, N.E.	1	less than ½	4 less.	22	− 7	2·0	− 2·7	30	42	130	+58	27	+12
	3. ENGLAND, EAST	1	less than ½	4 less.	20	−10	2·0	− 1·6	34	47	160	+63	32	+12
	4. MIDLAND COUNTIES	1	less than ½	5 less.	21	− 9	2·5	− 2·1	35	48	141	+55	28	+11
	5. ENGLAND, SOUTH	2	1	5 less.	21	− 9	2·5	− 2·3	32	43	122	+36	24	+ 7
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	3	12	1 less.	31	− 4	7·8	+ 0·1	27	38	105	+28	22	+ 6
	7. ENGLAND, N.W.	2	5	1 less.	25	− 6	3·8	− 1·8	33	46	126	+48	26	+10
	8. ENGLAND, S.W.	3	2	7 less.	26	− 7	3·6	− 4·4	37	50	146	+44	29	+ 9
	9. IRELAND, NORTH	3	9	2 more.	29	− 8	5·4	− 0·5	30	41	125	+26	26	+ 6
	10. IRELAND, SOUTH	2	6	3 less.	27	− 9	5·7	− 1·7	35	47	151	+38	30	+ 7
	— CHANNEL ISLANDS	2	1	6 less.	27	−10	3·3	− 2·8	40	54	201	+57	39	+11

General Remarks.

Weather has been dull and unsettled in the extreme north and north-east of Scotland, and partially so in Ireland, but in all other parts of the Kingdom the conditions have been generally fair and dry, especially over eastern, central, and southern England.

Temperature has been above the mean in all districts, the excess ranging from 5° to 7° in Ireland, Scotland, and the north-east of England, and from 1° to 3° in the other English districts. The highest of the maxima, which were generally recorded either on the 27th or 28th, varied from 54° in the "Channel Islands" to 59° in "Scotland, E." and "England, N.E.", 60° in "England, N.W.", and to 61° in "England, S.W." (at Llandovery). The lowest of the minima, which were registered during the latter part of the period, varied from 23° in the east, south, and north-west of England, to 32° in "Ireland, S." and to 35° in the "Channel Islands".

Rainfall has been more than the mean in "Scotland, N." and "Ireland, N.", but less in all other districts. Over the greater part of England the fall has been scarcely appreciable.

Bright sunshine has been less prevalent in the north of Scotland than it was last week, but elsewhere a decided increase is shown. The percentages of the possible amount of duration ranged from 17 in "Scotland, N." and 18 in "Scotland, E.", to 38 in "Scotland, W.", to 50 in "England, S.W." and to 54 in the "Channel Islands".

Depressions observed.—During the whole of this period the barometer has been highest and comparatively steady over the southern and south-eastern parts of our area. No depressions have appeared directly over our Islands, but several large and deep disturbances have skirted our western and north-western coasts in a north-easterly direction, subsequently passing on to Scandinavia. Strong Southerly and South-Westerly winds or gales have consequently prevailed at all our western and north-western stations, but in the east and south the wind has been light and at times very variable in direction.

A 50619. 350.—3/87. Wt.'44 E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

Weather

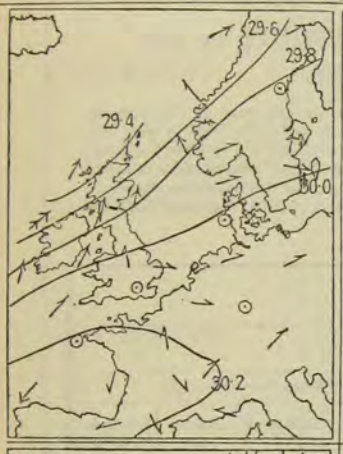
During the 24 hours succeeding

8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, February 22.

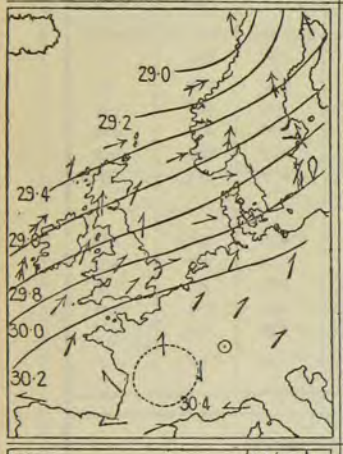
Weather fine in the south and east of England, but cloudy or overcast elsewhere, with showers at Stornoway and snow at Berlin. Rain falling later at all our western and northern stations.

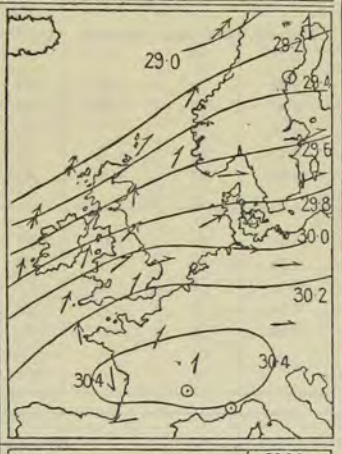
Temperature risen at all but the Scandinavian stations; readings over our Islands ranging from 51° at Valencia to 33° at Cambridge.

Wind North-Easterly in the south of France, but Southerly or South-Westerly elsewhere; strong to a gale in force on our extreme western and northern coasts. Subsequently increasing to a strong breeze in nearly all parts of the United Kingdom.

Sea rough at Stornoway and Valencia, and rather rough at most of the western stations.

Barometer falling quickly in the west and north of our Islands, but rising elsewhere. Pressure highest (30·2 ins. and upwards) in an anticyclone lying over France and the Bay of Biscay, with a large depression to the north-westward of Scotland. Further disturbances subsequently moving north-eastwards along our extreme west and north-west coasts.





Wednesday, February 23.

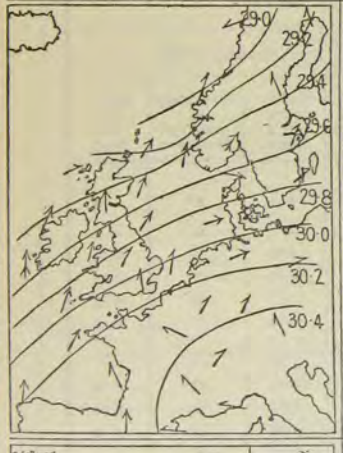
Weather fine in the south of France, but cloudy or overcast elsewhere, with squalls and showers locally. Some improvement taking place in east later. Severe earthquakes in early morning over the south of France and north of Italy.

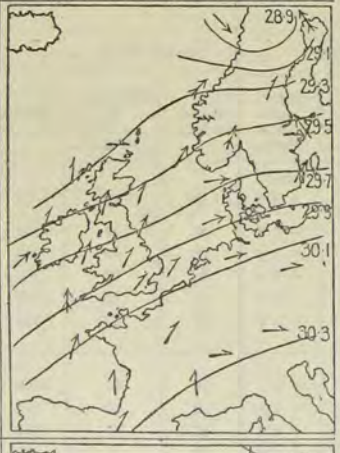
Temperature risen at all but our northern stations; readings over our Islands ranging from 51° at Belmullet and Valencia to 42° at Wick.

Wind light Easterly in the south of France, but fresh to strong from South-West or South elsewhere, with gale in Scandinavia and the west of Ireland. Gales blowing later at many of our western and northern stations.

Sea rough or rather so on our western and extreme northern coasts as well as off the west of Norway.

Barometer falling in the east of our Islands and also on the eastern shores of the North Sea, but rising elsewhere. Pressure highest (30·3 ins. to 30·4 ins.) over Germany, France, and Spain, with a large depression off the west of Norway, and relatively low pressures to the westward of our Islands. New disturbance subsequently travelling northwards along our extreme western coasts, and barometer falling in west and north.





Thursday, February 24.

Weather fine at our eastern and many of the Continental station, but cloudy elsewhere, with rain in the west and north of our Islands. Slight rain falling later over the greater part of the United Kingdom.

Temperature changed little and irregularly; readings over our Islands ranging from 52° at Valencia and 51° at Leith and Mullaghmore to 44° at Dungeness and Yarmouth.

Wind South-Westerly or Southerly, strong in force in many parts of our Islands, with gales at several of the western stations. Gales subsiding later.

Sea high at Valencia and Scilly and rough on our west and north-west coasts generally.

Barometer falling in most places. Central portion of anticyclone now lying over South Germany and the east of France. Large depression again shown off the west of Norway, and further disturbances passing along our extreme western coasts. Slight rise taking place in west later.

Friday, February 25.

Weather fine over the greater part of our Islands and France, but cloudy on the eastern shores of the North Sea. Some improvement taking place in latter region towards evening.

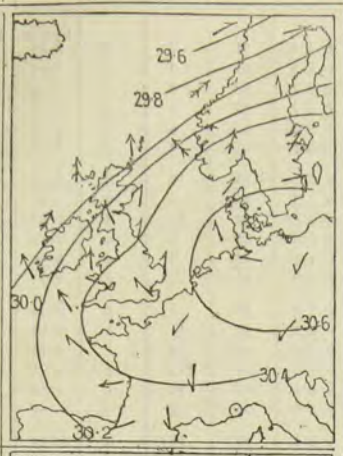
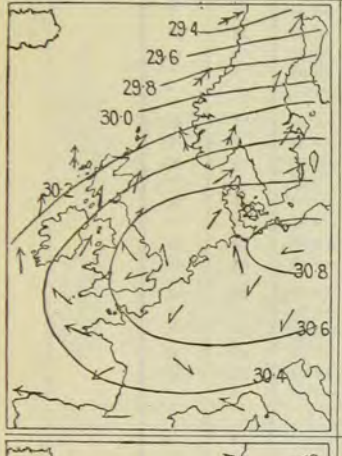
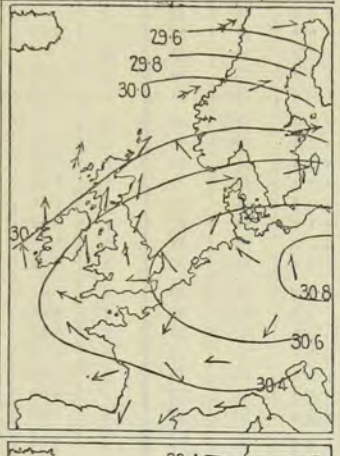
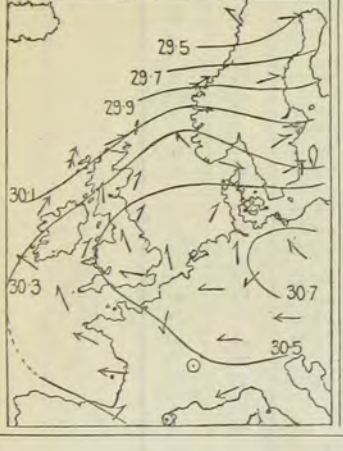
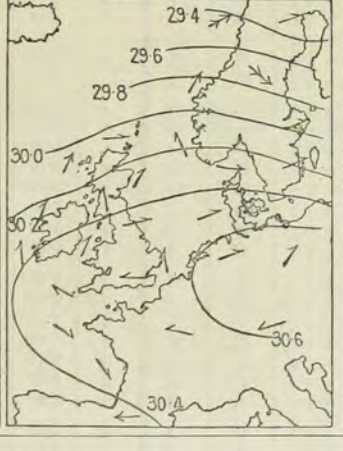
Temperature fallen several degrees in the west and north of our Islands, but risen at most of the Continental stations; readings over the United Kingdom ranging from 48° at Scilly to 36° at Parsonstown. Frost occurring over many parts of Great Britain at night.

Wind Westerly or North-Westerly on our western and northern coasts, but South-Westerly elsewhere, moderate to strong in force generally. Subsequently backing to South-East or South in Ireland and the south-west of England.

Sea rough on our south-west coasts and rather rough off the west of Norway, but moderate to smooth elsewhere.

Barometer rising at all but the Danish and German stations. Large anticyclonic system lying over Southern Europe generally, with low pressures in the north of Scandinavia. Anticyclone subsequently extending northwards, and rapid rise of barometer taking place over our Islands.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, February 26.** *Weather* fine over the greater parts of western Europe, but foggy in the south-east of England and the north-east of France. Fog clearing later. *Temperature* risen somewhat in the extreme west and north, but fallen elsewhere; readings over our Islands ranging from 50° at Valencia to 28° at Loughborough and Oxford. Sharp frost occurring over central England at night. *Wind* light Northerly or North-Easterly over Denmark, Westerly in Germany, and Easterly in the west of France; but strong to a gale from South and South-East in Ireland and the west of Scotland. *Sea* high at Stornoway and Valencia and rough or rather so on our western and extreme northern coasts generally. *Barometer* falling on our western and extreme northern coasts, but rising elsewhere. Pressure highest (30·5 ins. and upwards) in an anticyclone lying over the south-east of England and north-east of France; large and rather deep depression lying to the westward of our Islands. Depression subsequently moving northwards and barometer rising in west.	
		**Sunday, February 27.** *Weather* fair or fine generally, but rainy in the west of Norway and also in the Hebrides. *Temperature* fallen several degrees in Germany and the south of France, but risen slightly in most other localities; readings over our Islands ranging from 49° at Nairn, Belmullet, and Valencia to 29° at Oxford. Subsequently rising to 57° at Leith, 58° at Loughborough, and 59° at Nairn and Shields. *Wind* Easterly or North-Easterly in Germany and France, South-Easterly or Southerly in our Islands and South-Westerly in Scandinavia; strong to a gale in force in Norway and the western parts of Ireland and Scotland. *Sea* high at Stornoway and Valencia and rough or rather so on our extreme western and northern coasts generally. *Barometer* rising at all but the Scandinavian stations. Pressure highest (30·8 ins. and upwards) over North Germany, with a deep depression to the northward of Norway and relatively low readings on our western coasts. Depression in far north subsequently moving eastwards.	
		**Monday, February 28.** *Weather* fine in most places, but rainy in the west of Norway and extreme south of France. Subsequently becoming dull on our extreme western coasts. *Temperature* fallen slightly at all but the Scandinavian stations; readings over our Islands ranging from 49° at Sumburgh Head and 47° at Valencia and Scilly to 24° at Oxford. Sharp frost occurring over England at night. *Wind* Easterly over France, Germany, and the south of our Islands, but Southerly or South-Westerly elsewhere; strong in force over Scandinavia and our extreme north-west coasts. *Sea* high at Stornoway, and rather rough off our south-west coasts, but moderate to smooth elsewhere. *Barometer* falling at all but the French stations. Anticyclone with readings above 30·7 inches lying over Germany, with a depression off the north-west of Norway. Depression subsequently moving south-eastwards, and barometer rising at several of the western and northern stations.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 29 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head §	51	34	47·3	39·4	43·4	+ 4·4	21	7	5	0·96	+0·16	*	*
	Stornoway §	51	34	48·7	39·7	44·2	+ 4·5	25	6	6	1·94	+1·02	12	17
	Wick §	55	34	50·4	39·3	44·9	+ 5·9	32	8	4	0·46	−0·04	*	*
	Lairg §	55	31	49·3	41·6	45·5	+ 8·0	26	1	4	0·50	−0·27	*	*
	Glencarron §	57	34	50·9	40·6	45·8	+ 8·0	32	4	5	4·41	?	*	*
	Fort Augustus §	54	33	?49·4	?39·5	?44·5	+?5·7	?28	?7	5	2·59	?	*	*
1. SCOTLAND, E.	Nairn §	59	32	53·3	36·3	44·8	+ 5·3	44	16	3	0·41	+0·01	*	*
	Aberdeen §	54	34	51·3	39·9	45·6	+ 6·6	34	6	0	—	−0·61	13	18
	Braemar §	57	32	49·5	38·5	44·0	+ 8·6	29	10	3	0·29	−0·46	*	*
	Ochtertyre §	54	31	51·4	39·1	45·3	+ 7·5	35	8	3	0·99	+0·08	*	*
	Leith §	58	33	54·3	40·1	47·2	+ 7·1	44	5	3	0·12	−0·25	*	*
	Marchmont §	54	32	49·5	38·1	43·8	+ 5·9	29	11	1	0·02	−0·56	*	*
2. ENGLAND, N.E.	Alnwick Castle	55	33	51·3	40·3	45·8	+ 6·7	34	5	1	0·04	−0·52	*	*
	Durham	57	30	52·3	35·8	44·1	+ 4·7	41	17	1	0·13	−0·32	29	40
	Shields	59	34	53·3	38·3	45·8	+ 5·8	42	10	1	0·02	−0·38	*	*
	Scarborough ℳ	52	32	50·9	?37·3	?44·1	+?4·4	?34	?13	1	0·01	−0·43	*	*
	York	56	29	53·0	35·7	44·4	+ 4·4	43	18	1	0·06	−0·39	31	43
	Spurn Head §	53	34	49·7	37·6	43·7	+ 3·9	30	12	0	—	?	*	*
3. ENGLAND, E.	Hillington ℳ	56	24	51·7	33·4	42·6	+ 2·4	40	24	0	‖0·01	−0·44	33	45
	Yarmouth	52	32	46·0	36·3	41·2	+ 0·2	11	23	0	—	−0·50	*	*
	Geldeston	54	24	50·6	33·2	41·9	+ 0·9	24	37	0	‖0·04	−0·36	36	49
	Cambridge	58	23	53·3	32·3	42·8	+ 2·0	46	27	0	—	−0·38	34	47
	Rothamsted	51	24	49·8	32·3	41·1	+ 0·6	22	40	2	0·05	−0·38	*	*
	Ingatestone	51	27	49·0	34·1	41·6	+ 0·1	20	33	1	0·04	−0·33	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	56	28	52·9	34·7	43·8	+ 3·0	43	20	0	—	−0·40	37	51
	Loughborough	58	26	54·1	34·3	44·2	+ 3·5	48	22	1	0·02	−0·45	*	*
	Leicester	57	26	53·1	34·2	43·7	+ 3·2	45	22	1	0·04	−0·43	30	41
	Cheadle ℳ	54	28	50·4	34·9	42·7	+ 2·8	35	20	1	0·08	−0·57	*	*
	Churchstoke ℳ	56	28	52·1	34·5	43·3	+ 2·7	41	21	2	0·11	−0·52	41	56
	Hereford ℳ	54	26	52·3	34·5	43·4	+ 1·9	41	21	1	0·04	−0·51	*	*
	Cirencester	53	23	50·0	33·0	41·5	+ 1·0	22	37	3	0·05	−0·57	36	49
	Oxford	53	24	50·7	34·3	42·5	+ 1·4	36	22	1	0·01	−0·44	33	45
5. ENGLAND, S.	London†	56	28	52·1	35·0	43·6	+ 1·6	41	20	0	—	−0·44	20	27
	Strathfield Turgiss ℳ	53	25	51·2	32·6	41·9	0·0	26	39	3	0·05	−0·41	*	*
	Dungeness	52	29	47·6	36·4	42·0	0·0	16	16	1	0·02	−0·48	*	*
	Hastings (St. Leonard's)	52	35	48·7	38·7	43·7	+ 1·2	26	9	2	0·02	−0·45	41	55
	Southampton	55	29	50·1	36·7	43·4	+ 1·4	32	15	3	0·09	−0·55	35	47
	Hurst Castle	52	32	48·1	35·9	42·0	− 0·9	17	17	2	0·08	−0·47	*	*
	Stowell ℳ	51	29	49·2	35·9	42·6	+ 0·8	30	17	4	0·06	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡ §	54	37	50·6	42·7	46·7	+ 6·6	33	0	4	2·60	+0·53	*	*
	Glasgow	55	36	49·6	41·4	45·5	+ 5·6	27	2	3	1·34	+0·54	25	35
	Ardrossan §	48	36	47·1	41·1	44·1	+ 4·2	18	3	5	0·65	−0·13	*	*
	Glenlee §	52	29	48·9	36·3	42·6	+ 4·1	28	16	3	1·29	?	*	*
	Douglas (Isle of Man)	51	32	48·4	38·9	43·7	+ 2·5	25	9	2	0·18	−0·64	29	40
7. ENGLAND, N.W.	Newton Reigny (Penrith)	55	29	50·4	37·0	43·7	+ 5·2	33	14	4	1·06	+0·37	30	42
	Barrow-in-Furness	50	35	47·7	39·6	43·7	+ 1·9	22	7	2	0·76	+0·11	*	*
	Stonyhurst	52	23	49·9	35·6	42·8	+ 2·8	32	18	2	1·03	+0·13	32	44
	Blackpool ℳ	53	30	48·3	37·3	42·8	+ 1·0	25	13	2	0·55	−0·03	32	44
	Manchester	55	33	51·8	36·1	44·0	+ 3·2	39	17	2	0·25	−0·32	*	*
	Liverpool Obsy (Bidston)	54	33	51·3	39·4	45·4	+ 3·9	35	7	1	0·08	−0·35	*	*
	Llandudno ℳ	60	34	53·3	40·8	47·1	+ 4·3	41	3	3	0·14	−0·39	38	52
	Holyhead	52	39	49·3	42·4	45·9	+ 2·8	27	0	3	0·17	−0·43	*	*
8. ENGLAND, S.W.	Llandovery	61	26	52·9	34·1	43·5	+ 0·9	44	22	3	0·53	−0·54	*	*
	Pembroke	49	40	47·1	42·4	44·8	+ 0·8	20	0	3	0·40	−0·33	37	51
	Arlington (N. Devon)	53	33	49·4	37·9	43·7	+ 1·7	29	11	3	0·20	−0·90	*	*
	Cullompton ℳ	53	26	51·2	34·6	42·9	+ 0·5	37	21	2	0·05	−0·73	34	46
	Falmouth	52	38	49·6	43·0	46·3	+ 2·0	30	0	3	0·14	−0·82	37	50
	Plymouth	52	33	50·3	38·3	44·3	+ 0·3	32	10	3	0·07	−0·68	40	54
	Prawle Point	54	37	49·1	42·0	45·6	+ 2·2	25	0	2	0·05	?	*	*
9. IRELAND, N.	Malin Head §	53	37	50·3	40·4	45·4	+ 4·5	31	4	4	1·49	?	*	*
	Londonderry	56	38	53·4	41·3	47·4	+ 6·5	41	2	4	0·95	+0·27	*	*
	Mullaghmore	55	40	52·9	42·9	47·9	+ 6·6	41	0	3	1·35	+0·50	*	*
	Belmullet §	54	41	51·0	44·1	47·6	+ 4·1	39	0	4	1·23	?	*	*
	Markree Castle §	54	35	51·8	40·5	46·2	+ 5·6	36	4	3	0·75	+0·10	28	39
	Brookeborough §	54	36	52·4	40·8	46·6	+ 6·7	37	3	3	0·55	?	*	*
	Armagh	55	36	53·8	41·2	47·5	+ 5·8	42	2	3	0·49	−0·11	31	43
	Donaghadee §	53	34	50·0	40·3	45·2	+ 3·4	30	5	2	0·12	−0·48	*	*
	Edgeworthstown §	54	31	52·3	38·7	45·5	+ 5·2	38	9	3	1·05	+0·25	*	*
10. IRELAND, S.	Dublin	57	34	55·9	42·9	48·4	+ 5·9	45	0	1	0·03	−0·52	41	56
	Parsonstown	56	35	53·9	39·6	46·8	+ 5·1	44	7	3	0·36	−0·20	39	53
	Kilkenny	56	36	54·7	40·6	47·7	+ 6·0	46	4	2	0·21	−0·45	*	*
	Waterford	52	39	51·6	41·9	46·8	+ 2·9	34	0	2	0·13	−0·69	*	*
	Roche's Point §	52	40	50·7	44·0	47·4	+ 3·2	38	0	2	0·43	−0·69	*	*
	Valencia §	54	37	51·7	44·1	47·9	+ 2·6	41	0	3	0·82	−0·36	24	33
	Killarney §	56	32	53·8	43·4	48·6	+ 4·7	46	0	3	1·81	?	*	*
	Foynes §	57	34	54·6	41·5	48·1	+ 5·9	45	1	3	0·60	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's) §	54	43	52·3	45·1	48·7	+ 2·7	47	0	3	0·11	−0·57	*	*
	Jersey (Noirmont) §	51	35	48·1	39·0	43·6	+ 0·9	24	8	0	‖0·01	−0·63	40	54

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

‖ Dew.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.

VOL. IV. No. 9.] *New Series.* WEEK ENDING MONDAY, 7TH MARCH, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

DISTRICTS. (See p. 36.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.														
0. SCOTLAND, NORTH	56	24	48·9	38·3	43·4	5 above.	25	+16	10	−21	106	+45	234	− 50
1. SCOTLAND, EAST	61	21	50·9	34·2	42·3	4 above.	35	+21	22	−10	138	+58	303	− 34
2. ENGLAND, N.E.	57	26	46·8	32·6	39·5	0 (average)	13	− 1	35	+ 7	105	+24	334	+ 31
3. ENGLAND, EAST	54	23	44·0	28·7	36·1	5 below.	6	−13	46	+17	66	−34	423	+106
4. MIDLAND COUNTIES	54	21	44·0	28·5	36·0	5 below.	6	−15	47	+19	105	−10	403	+ 93
5. ENGLAND, SOUTH	52	22	45·0	29·7	37·1	5 below.	8	−15	43	+22	101	−23	325	+ 83
Principal Grazing, &c. Districts.														
6. SCOTLAND, WEST	55	24	47·8	37·0	42·2	2 above.	22	+13	14	−10	112	+19	226	− 23
7. ENGLAND, N.W.	54	26	45·6	33·8	39·6	2 below.	10	− 4	31	+10	93	+ 1	298	+ 52
8. ENGLAND, S.W.	59	23	48·0	33·3	40·4	3 below.	17	− 6	33	+20	133	−41	224	+ 80
9. IRELAND NORTH	57	24	49·5	38·7	43·9	3 above.	27	+ 8	9	−11	165	+36	197	− 18
10. IRELAND, SOUTH	57	25	49·9	37·6	43·6	0 (average).	30	+ 4	12	− 1	215	+18	157	+ 14
— CHANNEL ISLANDS	53	34	48·3	38·6	43·3	1 below.	23	− 4	10	+ 5	151	−53	109	+ 40

Rainfall. **Bright Sunshine.**

DISTRICTS. (See p. 36.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.													
0. SCOTLAND, NORTH	2	1	7 less.	41	− 3	9·7	+ 2·6	18	24	93	0	18	0
1. SCOTLAND, EAST	0	less than ½	6 less.	27	− 5	3·6	− 2·1	34	45	150	+14	28	+ 2
2. ENGLAND, N.E.	0	—	4 less.	22	−11	2·0	− 3·2	23	30	153	+64	27	+11
3. ENGLAND, EAST	0	—	4 less.	20	−15	2·0	− 2·0	20	26	180	+61	31	+10
4. MIDLAND COUNTIES	0	—	4 less.	21	−13	2·5	− 2·5	12	16	153	+46	27	+ 8
5. ENGLAND, SOUTH	0	—	4 less.	21	−13	2·5	− 2·7	22	29	144	+35	25	+ 6
Principal Grazing, &c. Districts.													
6. SCOTLAND, WEST	1	less than ½	7 less.	32	− 8	7·8	− 0·6	19	12	114	+23	20	+ 3
7. ENGLAND, N.W.	0	—	6 less.	25	−11	3·8	− 2·6	17	23	143	+46	25	+ 7
8. ENGLAND, S.W.	0	—	7 less.	26	−12	3·6	− 5·1	33	43	179	+57	31	+10
9. IRELAND, NORTH	1	less than ½	6 less.	30	−12	5·4	− 1·2	15	20	140	+29	25	+ 5
10. IRELAND, SOUTH	1	1	7 less.	28	−13	5·8	− 2·4	18	24	169	+40	29	+ 6
— CHANNEL ISLANDS	0	less than ½	6 less.	27	−14	3·3	− 3·4	41	53	242	+74	40	+12

General Remarks.

Weather has been very dry in all parts of the United Kingdom; over the greater part of England cloudy or overcast skies and low temperatures have generally prevailed, with much fog or mist, while in the north and east of Scotland, and in some parts of Ireland, the weather has been fair and warm.

Temperature has been below the mean in nearly all the English districts, the deficit ranging from 2° in "England, N.W." to 5° over eastern, central, and southern England. In "Ireland, N." and over Scotland, however, the readings have been in excess of the mean value—in "Scotland, E." 4°, and in "Scotland, N." 5°. The highest of the maxima, which were recorded on irregular dates, varied from 52° in "England, S." to 59° in "England, S.W.", and to 61° in "Scotland, E." (at Aberdeen). The lowest of the minima, which were also registered at varying times, ranged from 21° in "Scotland, E." and the "Midland Counties", and 22° in "England, S.", to 26° in "England, N.W." and "England, N.E.", and to 34° in the "Channel Islands".

Rainfall has been less than the mean in all districts; over the greater part of the Kingdom the weather has been altogether rainless. At several of the English stations, however, the fogs yielded a measurable quantity of water in the gauge.

Bright sunshine shows a decrease in nearly all places. The percentages of the possible amount of duration ranged from 12 in "Scotland, W." and 16 in the "Midland Counties", to 43 in "England, S.W.", 45 in "Scotland, E.", and 53 in the "Channel Islands". In London only 5 °/₀ of the possible number of hours was recorded.

Depressions observed.—The only depressions observed in our area during this period were some large and deep systems moving eastwards or south-eastwards over the north of Scandinavia. Over our Islands, France, and Germany the distribution of pressure was anticyclonic, and the winds generally light and variable; but towards the end of the period (the centre of the high-pressure system having moved more to the northward) the wind over the southern parts of our Islands and the north of France blew moderately from the Eastward.

A 50698. 350.—3/87. Wt.144. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

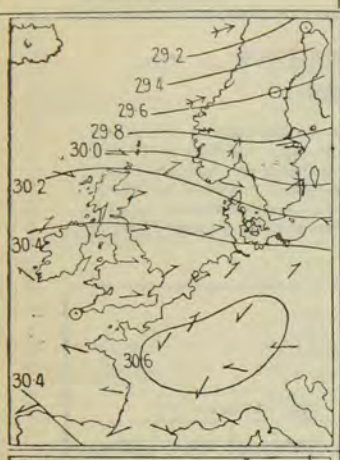
Weather

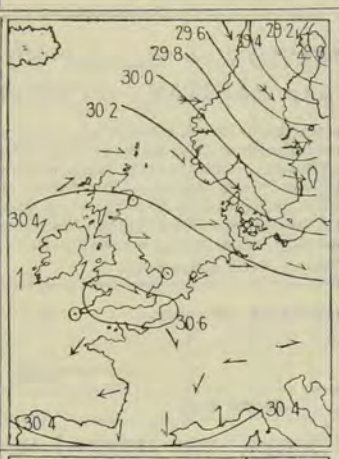
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, March 1.

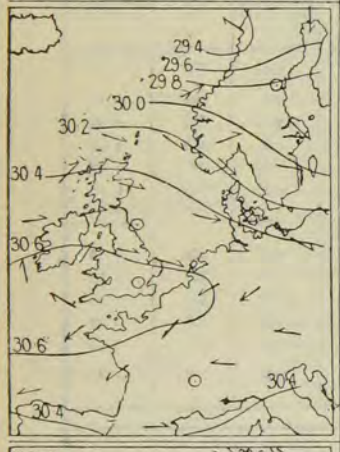
Weather rainy in the west of Norway and also on our extreme north-west coasts, but fair or fine elsewhere, with, however, fog or mist over the south and south-east of England.

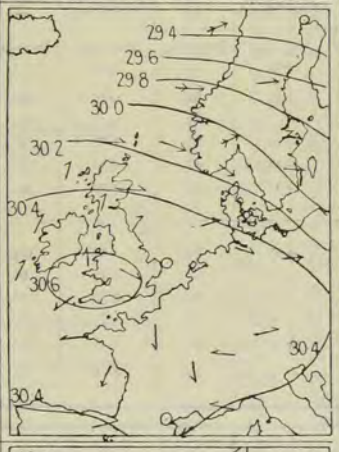
Temperature risen a little in most places; readings over our Islands ranging from 48° in the west of Ireland to 28° at Loughborough and Dungeness. Frost occurring over England at night.

Wind light Easterly in France and the south of England, but South-Westerly or Westerly elsewhere; strong to a gale in Norway. Subsequently increasing to a gale from North-West in Sweden.

Sea very high off the north-west of Norway, but moderate to smooth elsewhere.

Barometer rising at all but the Scandinavian stations. Pressure high, 30·6 ins. and upwards, in an anticyclone lying over France and western Germany, but large depression lying off the north-west of Norway. Depression subsequently moving south-eastwards, and barometer rising in Norway.





Wednesday, March 2.

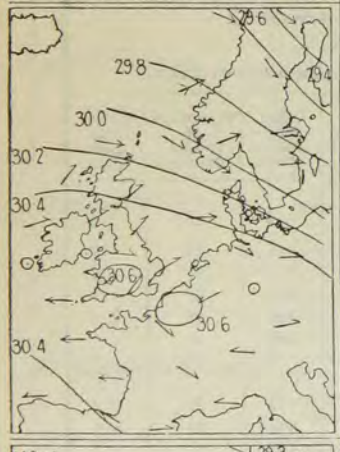
Weather fine in Sweden, Germany, the south of France, and the east of England, but cloudy or overcast elsewhere, with fog or mist in many places. Sky clearing later in south of England.

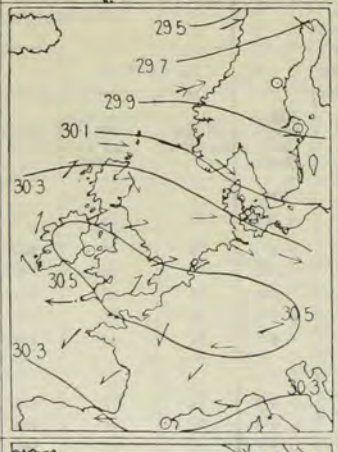
Temperature changed little and irregularly; readings over our Islands ranging from 48° in the west of Ireland and 46° in the Shetlands to 29° at Oxford and Yarmouth. Frost occurring over England at night.

Wind Easterly or North-Easterly over Germany, France, and the English Channel, but South-Westerly or Westerly elsewhere; light or moderate in force in most places. Subsequently increasing to fresh or strong gale in Scandinavia.

Sea high at Christiansund and rather rough at the mouth of the Channel, but moderate to smooth elsewhere.

Barometer rising in all localities excepting the north-west of Norway. Large anticyclonic system, with readings above 30·6 ins., lying over the Channel and the southern parts of our Islands, with a depression off the north-west of Norway. Depression in far north subsequently moving eastwards, and barometer rising at several northern stations.





Thursday, March 3.

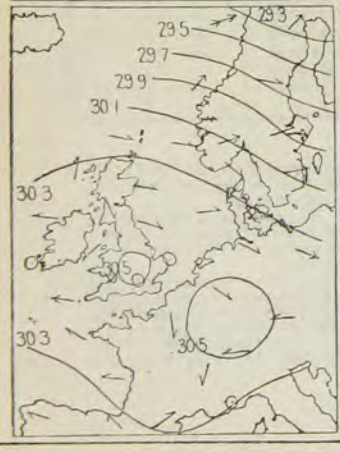
Weather fine in France, Spain, and the east of Great Britain, but cloudy or overcast elsewhere, with fog at many of our southern stations, and rain in the west of Norway. Slight rain in north of Scotland later.

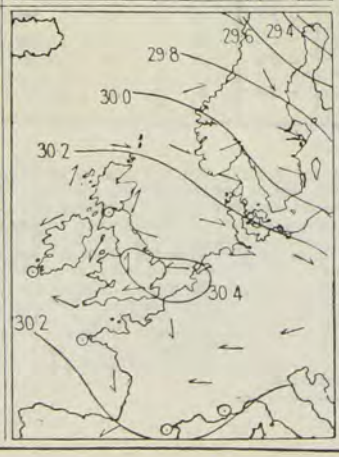
Temperature changed little and irregularly over England, Ireland, and the north of France, but risen several degrees elsewhere; readings over our Islands ranging from 49° at Nairn and 48° at Belmullet to 30° at Yarmouth. Frost occurring over England at night.

Wind Easterly in France and the south of our Islands, but chiefly Westerly elsewhere; strong in force at several of the Scandinavian stations, with a gale at Christiansund.

Sea rough at Christiansund and Sumburgh Head, but moderate to smooth elsewhere.

Barometer falling at all but our south-eastern and the French stations. Anticyclone lying over England, Ireland, the greater part of France, and Western Germany. Depression of previous day moving away in an easterly direction. Rise taking place in Scandinavia later.





Friday, March 4.

Weather fine generally, but foggy over England, the Netherlands, and the north-east of France, and rainy in the west of Norway.

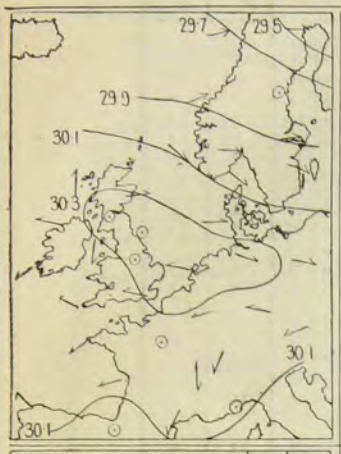
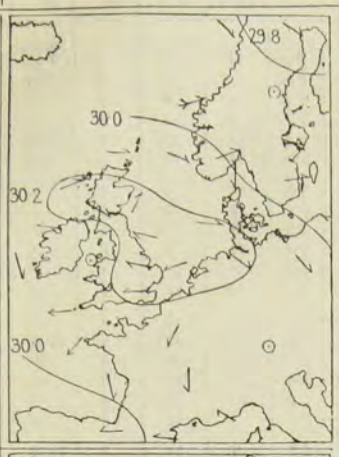
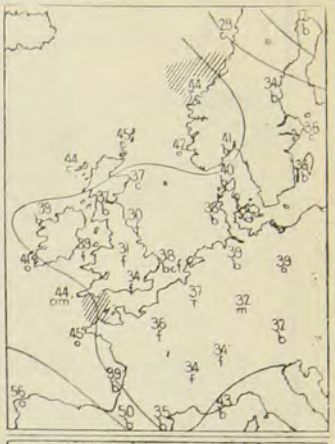
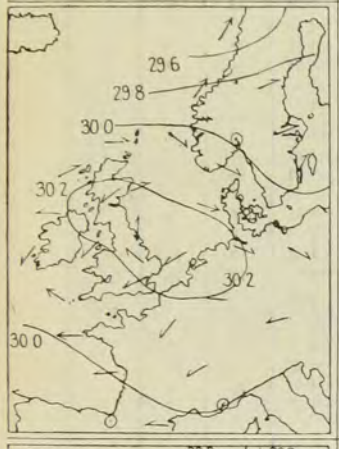
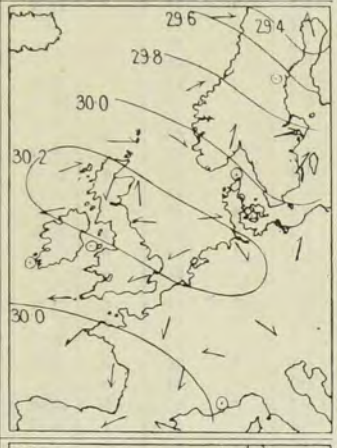
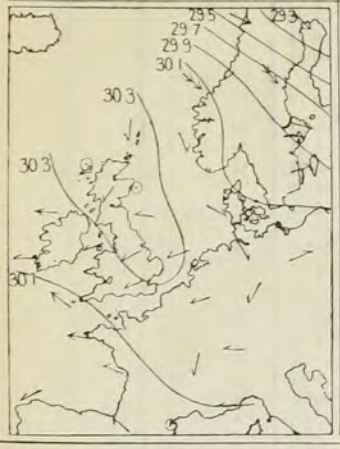
Temperature fallen at all but the Scandinavian stations; readings over our Islands ranging from 46° in the Shetlands and Hebrides to 24° at Loughborough. Frost occurring at many of our inland stations at night.

Wind Easterly in France and the south of our Islands, but South-Westerly or Westerly elsewhere; strong to a gale in force in Scandinavia. Subsequently varying to North-West over Norway and Sweden.

Sea rough off the west of Norway and rather rough at Sumburgh Head and Scilly, but moderate to smooth elsewhere.

Barometer falling generally. Large anticyclone lying over Ireland, England, the Netherlands, and Germany, with a depression over the north of Scandinavia. Depression subsequently moving eastwards, and barometer rising again in north.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, March 5.** *Weather* fair generally but foggy over England and the north of France, and rainy in the west of Norway. *Temperature* fallen a little in the north, but risen in the south; readings over our Islands ranging from 45° at Sumburgh Head and 44° at Stornoway and Scilly to 30° at Shields and Oxford. Frost occurring in many places at night. *Wind* Easterly and North-Easterly over Germany, France, and the south of our Islands, but South-Easterly on our extreme north-west coasts and Westerly in Scandinavia and Denmark; strong to a gale in the west of Norway. *Sea* rough at Christiansund and rather rough at the mouth of the Channel, but moderate to smooth elsewhere. *Barometer* falling at all but the Swedish stations. Anticyclone with readings above 30·3 ins. lying over Great Britain and the Netherlands, and depression of previous day passing away eastwards over northern Europe. No important change later.	
		**Sunday, March 6.** *Weather* fair on the whole but fog or mist very general over England, Ireland, the Netherlands, and Germany. Fog clearing later and solar or lunar halos seen in many parts of England. *Temperature* changed irregulariy; readings over our Islands ranging from 45° at Sumburgh Head and Valencia to 31° at Nairn and Aberdeen. Frost occurring at night in many parts of England and Ireland. *Wind* Easterly or North-Easterly over Germany, France, and the south of our Islands, but Westerly or South-Westerly in Scandinavia and the north of Scotland; strong in force in the west of Norway. *Sea* rather rough at Christiansund and Prawle Point, but moderate to smooth elsewhere. *Barometer* falling generally. Anticyclone lying over Great Britain and the Netherlands, but depression approaching the north-west of Norway. Depression subsequently moving eastwards, and barometer rising at many of our northern stations.	
		**Monday, March 7.** *Weather* dull at several of the English stations, but fair or fine elsewhere. Lunar halo seen at Stornoway in evening. *Temperature* fallen a little on our western and northern coasts, but changed slightly and irregularly elsewhere; readings over our Islands ranging from 47° at Scilly to 34° at Barrow-in-Furness, Liverpool, and Oxford, and 33° at Parsonstown. *Wind* strong to a gale from North-West in Scandinavia, and moderate from the same quarter in Denmark, but variable in the north of Scotland, and Easterly or North-Easterly elsewhere. Easterly gale subsequently blowing at mouth of Channel. *Sea* rough in the western part of the Channel, and also at Christiansund, but moderate to smooth elsewhere. *Barometer* rising at all but the northern Scandinavian stations. Anticyclone lying over the greater part of England, Scotland, and the North Sea, with a depression over the north of Scandinavia. Slight fall taking place over our Islands later, and anticyclone moving eastwards.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 33 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head ℌ	49	36	47·9	41·3	44·5	+ 5·6	20	2	2	0·02	−0·73	*	*
	Stornoway ℌ	53	33	49·3	39·6	44·3	+ 4·5	26	7	3	0·03	−0·87	18	24
	Wick ℌ	55	35	51·7	39·3	45·3	+ 6·4	34	8	0	—	−0·48	*	*
	Lairg ℌ	51	24	44·4	35·6	39·9	+ 2·3	7	23	0	—	−0·72	*	*
	Glencarron ℌ	56	29	48·7	38·0	43·2	+ 5·6	25	11	3	0·25	?	*	*
	Fort Augustus ℌ	56	25	51·2	36·1	45·4	+ 5·9	35	17	2	0·06	?	*	*
1. SCOTLAND, E.	Nairn ℌ	56	29	52·7	36·9	44·6	+ 5·0	40	14	0	—	−0·40	*	*
	Aberdeen ℌ	61	30	52·4	33·0	42·6	+ 3·7	42	25	0	—	−0·58	34	45
	Braemar ℌ	53	21	50·8	31·0	40·6	+ 5·0	25	43	0	—	−0·73	*	*
	Ochtertyre ℌ	57	27	52·3	33·1	42·4	+ 4·8	40	25	1	0·01	−0·79	*	*
	Leith ℌ	53	28	48·6	37·3	42·8	+ 2·5	25	18	0	—	−0·35	*	*
	Marchmont ℌ	52	25	48·6	33·9	41·0	+ 3·1	18	31	1	0·02	−0·50	*	*
2. ENGLAND, N.E.	Alnwick Castle ℌ	52	28	45·7	33·3	39·3	− 0·1	10	32	0	—	−0·52	*	*
	Durham ℌ	57	26	49·4	31·4	40·1	+ 0·8	21	40	0	‖0·01	−0·45	24	32
	Shields ℌ	54	29	47·4	33·6	40·3	+ 0·4	15	32	0	—	−0·38	*	*
	Scarborough ℌ	54	30	45·8	?33·2	?39·3	?− 0·4	?11	?31	0	—	−0·42	*	*
	York ℌ	56	26	47·7	29·4	38·3	− 1·7	16	46	0	—	−0·41	21	28
	Spurn Head ℌ	48	33	44·7	34·7	39·6	− 0·2	8	27	0	—	?	*	*
3. ENGLAND, E.	Hillington ℌ	52	24	44·8	28·0	36·2	− 3·8	8	50	0	‖0·02	−0·38	18	24
	Yarmouth ℌ	49	28	41·1	31·4	36·1	− 4·8	0	41	0	—	−0·48	*	*
	Geldeston ℌ	54	25	44·2	30·3	37·0	− 4·0	6	41	0	—	−0·38	18	23
	Cambridge ℌ	52	23	45·0	26·0	35·2	− 5·6	8	56	0	—	−0·35	24	31
	Rothamsted ℌ	51	23	44·4	27·4	35·7	− 5·1	7	51	0	‖0·02	−0·44	*	*
	Ingatestone ℌ	50	24	44·3	28·8	36·3	− 5·4	6	46	0	‖0·01	−0·33	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§ ℌ	50	24	44·6	29·6	36·9	− 3·9	7	44	0	—	−0·38	16	21
	Loughborough ℌ	53	24	45·9	28·4	36·9	− 3·9	11	49	1	0·02	−0·38	*	*
	Leicester ℌ	51	24	44·2	29·9	36·8	− 3·6	6	42	0	‖0·04	−0·36	10	13
	Cheadle ℌ	51	25	42·9	30·1	36·3	− 3·5	3	41	1	0·01	−0·44	*	*
	Churchstoke ℌ	49	22	42·9	27·6	35·0	− 5·5	3	49	0	—	−0·41	17	22
	Hereford ℌ	54	25	44·7	29·1	36·7	− 4·6	8	46	0	‖0·01	−0·34	*	*
	Cirencester ℌ	51	21	44·1	26·3	34·9	− 5·9	6	54	0	—	−0·42	?6	?8
	Oxford ℌ	47	23	42·9	27·0	34·7	− 6·6	3	51	0	—	−0·39	12	16
5. ENGLAND, S.	London† ℌ	49	28	43·9	30·1	36·8	− 5·0	5	42	0	‖0·01	−0·36	4	5
	Strathfield Turgiss ℌ	50	22	44·9	26·8	35·6	− 6·3	8	53	0	—	−0·38	*	*
	Dungeness ℌ	50	23	44·6	30·4	37·3	− 5·6	7	41	1	0·02	−0·45	*	*
	Hastings (St. Leonard's) ℌ	52	28	44·8	32·2	38·3	− 4·1	8	35	0	‖0·02	−0·43	36	47
	Southampton ℌ	51	26	47·0	29·7	38·1	− 4·2	14	45	0	—	−0·55	27	35
	Hurst Castle ℌ	50	28	45·3	30·3	37·6	− 5·3	9	42	0	‖0·03	−0·47	*	*
	Stowel ℌ	46	24	44·7	28·1	36·2	− 5·6	8	49	0	‖0·02	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡ ℌ	55	31	50·0	37·6	43·6	+ 3·5	30	12	2	0·10	−1·83	*	*
	Glasgow ℌ	49	29	46·4	37·9	42·0	+ 2·0	12	11	1	0·02	−0·64	7	9
	Ardrossan ℌ	50	31	47·3	38·9	43·0	+ 2·9	20	9	1	0·01	−0·69	*	*
	Glenlee ℌ	55	24	49·6	33·6	41·4	+ 2·6	21	33	1	0·02	?	*	*
	Douglas (Isle of Man) ℌ	50	29	45·7	36·9	41·2	− 0·7	10	20	0	—	−0·72	11	14
7. ENGLAND, N.W.	Newton Reigny (Penrith) ℌ	54	27	49·9	31·2	40·3	+ 1·0	22	42	0	—	−0·62	28	37
	Barrow-in-Furness ℌ	47	33	44·6	36·9	40·6	− 1·3	7	19	2	0·02	−0·58	*	*
	Stonyhurst ℌ	48	27	44·8	32·5	38·5	− 1·4	8	34	0	—	−0·85	11	14
	Blackpool ℌ	47	27	44·5	32·3	38·4	− 3·5	7	36	0	—	−0·52	8	11
	Manchester ℌ	48	26	43·7	31·4	37·4	− 3·5	5	37	0	‖0·02	−0·53	*	*
	Liverpool Obsy (Bidston) ℌ	48	28	45·4	33·4	38·3	− 3·1	4	30	0	—	−0·41	*	*
	Llandudno ℌ	51	29	46·0	34·3	40·0	− 2·9	11	29	0	—	−0·48	21	28
	Holyhead ℌ	53	36	47·7	38·4	42·9	− 0·4	21	10	0	—	−0·52	*	*
8. ENGLAND, S.W.	Llandovery ℌ	57	23	51·4	29·7	40·2	− 2·6	26	47	0	—	−0·48	*	*
	Pembroke ℌ	50	36	46·3	39·0	42·5	− 1·7	16	8	0	—	−0·67	33	43
	Arlington (N. Devon) ℌ	59	27	50·3	29·6	39·6	− 2·2	23	47	0	‖0·01	−0·94	*	*
	Cullompton ℌ	51	23	46·7	29·4	37·8	− 4·5	13	46	0	‖0·01	−0·67	28	36
	Falmouth ℌ	49	34	46·1	38·3	42·1	− 2·3	16	10	0	‖0·01	−0·84	21	27
	Plymouth ℌ	51	29	48·5	32·5	40·3	− 3·6	18	36	0	—	−0·66	51	66
	Prawle Point ℌ	52	34	46·4	34·4	40·2	− 3·3	12	28	0	—	?	*	*
9. IRELAND, N.	Malin Head ℌ	50	37	47·0	41·6	44·2	+ 3·3	17	1	1	0·08	?	*	*
	Londonderry ℌ	57	30	53·8	37·8	45·6	+ 4·8	43	12	1	0·04	−0·61	*	*
	Mullaghmore ℌ	52	34	50·1	40·1	45·0	+ 3·4	29	5	1	0·04	−0·72	*	*
	Belmullet ℌ	51	36	49·6	41·9	45·6	+ 1·6	26	0	1	0·04	?	*	*
	Markree Castle ℌ	57	24	50·7	35·8	43·0	+ 2·2	33	17	1	0·03	−0·57	21	28
	Brookeborough ℌ	54	27	49·8	36·5	43·0	+ 3·2	30	15	0	—	?	*	*
	Armagh ℌ	50	28	48·3	36·9	42·4	+ 0·6	24	14	0	—	−0·53	9	12
	Donaghadee ℌ	53	37	47·7	40·1	43·8	+ 1·9	21	5	0	—	−0·50	*	*
	Edgeworthstown ℌ	51	30	48·6	37·3	42·8	+ 2·5	25	13	0	—	−0·72	*	*
10. IRELAND, S.	Dublin ℌ	51	30	48·1	38·9	43·4	+ 1·0	23	9	0	—	−0·50	14	18
	Parsonstown ℌ	53	25	51·4	33·7	42·6	+ 0·8	39	23	0	—	−0·53	21	28
	Kilkenny ℌ	57	25	52·6	33·1	42·6	+ 0·8	42	25	0	—	−0·58	*	*
	Waterford ℌ	51	32	49·1	38·4	43·6	− 0·2	26	10	0	—	−0·73	*	*
	Roche's Point ℌ	50	38	47·6	42·0	44·7	+ 0·4	19	0	0	—	−0·90	*	*
	Valencia ℌ	55	33	51·1	39·4	45·1	− 0·2	26	7	0	—	−1·05	19	25
	Killarney ℌ	54	30	50·2	37·8	43·8	− 0·1	30	12	1	0·28	?	*	*
	Foynes ℌ	52	30	49·0	37·1	42·9	+ 0·3	27	14	1	0·15	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's) ℌ	53	40	49·4	41·0	45·1	− 0·8	26	3	0	—	−0·58	*	*
	Jersey (Noirmont) ℌ	52	34	47·1	35·1	41·4	− 1·4	14	23	0	‖0·03	−0·55	41	53

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

‖ These amounts are due to the wet fogs and mists.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.

VOL. IV. No. 10.] *New Series.* WEEK ENDING MONDAY, 14TH MARCH, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 40.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	48	12	37·1	26·7	31·7	7 below.	0	− 9	72	+40	106	+35	307 *	− 7
	1. SCOTLAND, EAST	52	20	39·7	28·2	33·8	5 below.	0	−15	57	+26	138	+35	360	0
	2. ENGLAND, N.E.	51	21	40·5	30·5	35·3	5 below.	0	−15	47	+19	105	− 1	381	+ 57
	3. ENGLAND, EAST	51	20	42·5	28·9	35·5	5 below.	1	−20	45	+16	67	−63	468	+130
	4. MIDLAND COUNTIES	51	14	42·6	30·0	36·1	5 below.	2	−21	41	+13	107	−38	444	+113
	5. ENGLAND, SOUTH	50	20	43·0	31·5	37·1	5 below.	3	−22	36	+14	104	−52	361	+103
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	49	14	40·3	29·1	34·5	6 below.	0	−15	53	+30	112	− 1	279	+ 15
	7. ENGLAND, N.W.	53	11	41·6	31·5	36·4	5 below.	0	−16	39	+18	92 *	−21	336 *	+ 75
	8. ENGLAND, S.W.	52	14	43·3	31·5	37·2	7 below.	4	−20	36	+22	137	−67	260	−105
	9. IRELAND NORTH	52	18	43·9	32·4	38·0	4 below.	5	−15	34	+13	170	+15	231	+ 1
	10. IRELAND, SOUTH	52	19	45·2	32·6	38·7	5 below.	9	−18	34	+20	224	− 6	191	+ 37
	— CHANNEL ISLANDS	54	32	44·0	37·4	40·6	4 below.	6	−22	17	+12	157	−82	126	+ 52

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 40.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	4	3 less.	46	− 4	10·1	+ 2·2	20	25	113	− 1	19	0
	1. SCOTLAND, EAST	4	8	3 more.	31	− 5	4·4	− 1·8	31	39	180 *	+22	29	+ 3
	2. ENGLAND, N.E.	4	6	2 more.	26	−10	2·6	− 3·0	27	35	180	+71	28	+11
	3. ENGLAND, EAST	2	3	1 less.	22	−16	2·3	− 2·1	30	38	210	+67	32	+10
	4. MIDLAND COUNTIES	3	4	0 (average).	24	−13	2·9	− 2·5	21	26	174	+45	27	+ 7
	5. ENGLAND, SOUTH	2	5	1 more.	23	−13	3·0	− 2·6	22	28	166	+36	25	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	3	5	2 less.	35	−10	8·3	− 0·7	26 †	32	140	+27	22	+ 4
	7. ENGLAND, N.W.	3	5	0 (average).	28	−12	4·3	− 2·6	22	28	165	+50	26	+ 8
	8. ENGLAND, S.W.	3	5	2 less.	29	−13	4·1	− 5·3	25	31	204	+57	30	+ 7
	9. IRELAND, NORTH	5	4	2 less.	35	−12	5·8	− 1·4	22	27	162	+32	25	+ 4
	10. IRELAND, SOUTH	3	5	2 less.	31	−14	6·3	− 2·5	25	31	194	+39	30	+ 6
	— CHANNEL ISLANDS	2	2	4 less.	29	−17	3·5	− 3·7	16	20	258	+64	38	+ 9

General Remarks.

Weather has been cold and unsettled, with snow in nearly all parts of the Kingdom. The snowfall experienced in Scotland and the north of England on the 10th and 11th was very heavy.

Temperature has been considerably below the mean in all districts, the deficit ranging from 4° in "Ireland, N." and the "Channel Islands" to 7° in "Scotland, N." and "England, S.W." The highest of the maxima were recorded over the northern parts of the Kingdom on the 9th and over the more southern districts on the 10th, when the thermometer rose to between 50° and 54° in all localities excepting "Scotland, N." The lowest temperatures were recorded on the nights of the 12th and 13th, when the thermometer fell to 11° in "England, N.W.", 12° in "Scotland, N.", 14° in the "Midland Counties", "Scotland, W.", and "England, S.W.", and to between 18° and 21° in all other districts excepting the "Channel Islands". On the night of the 12th or early morning of the 13th, the thermometer on the grass at Newton Reigny fell to zero.

Rainfall has been less than the mean in nearly all the "Grazing" districts, and also in "Scotland, E." and "England, E.", but more in "Scotland, E.", "England, N.E.", and "England, S." As a rule the fall consisted almost entirely of snow or sleet.

Bright sunshine has been more prevalent than it was last week, the percentage of the possible amount of duration ranging from 25 in "Scotland, N." and 26 in the "Midland Counties", to 38 in "England, E." and 39 in "Scotland, E." In the "Channel Islands", however, the percentage, 20, was much lower than that of last week.

Depressions observed.—At the commencement of the week an anticyclone extended from the North Sea over the greater part of our Islands, so that Easterly winds prevailed on our south coasts and South-Easterly or Southerly winds in the west and north. In the course of the 9th and 10th, however, the anticyclone broke up, and on the morning of the 11th, two small depressions were found over our northern districts, one over the north-east of England and the other off the north-west of Ireland. These disturbances subsequently moved away in an easterly or a south-easterly direction, and on the 12th and 13th North-Easterly or Northerly winds prevailed over the greater part of the Kingdom. During the night of the 13th, however, a small depression appeared near the Firth of Clyde and in the course of the following day this moved slowly southwards, occasioning a shift of wind to West on our southern coasts, with very unsettled weather.

* These values have been altered owing to the receipt of further information.
† The corresponding value in last week's Report should read "9."

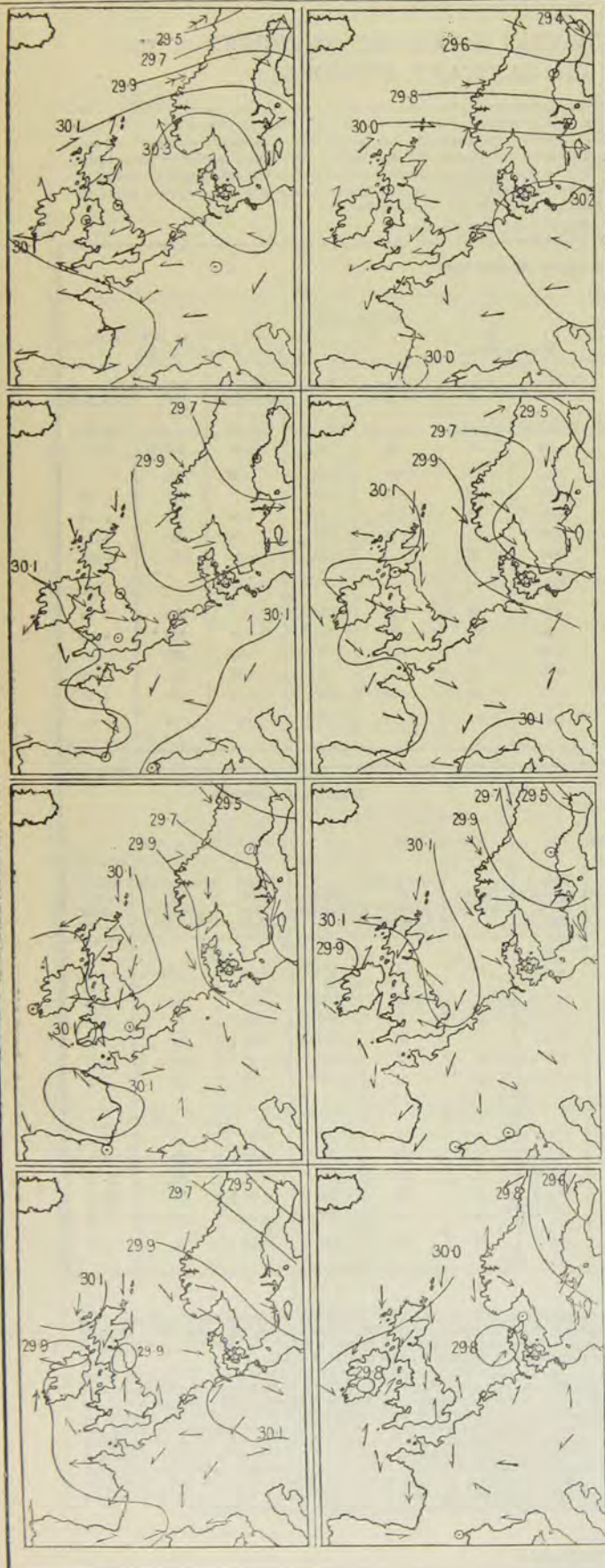
A 50776. 350.—3/87. Wt. 44. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**



Weather

During the 24 hours succeeding

8 a.m. on the dates given.

Tuesday, March 8.

Weather fair generally, but dull over the greater part of Ireland and England, with fog in many places.

Temperature changed little and irregularly; readings over our Islands ranging from 45° at Scilly to 35° at Nairn.

Wind South-Westerly or Westerly in Scandinavia and the north of Scotland, but chiefly Easterly elsewhere; light or moderate in force generally, but fresh at some of the Channel stations, and strong to a gale in the west of Norway. Wind in Channel subsiding later.

Sea very rough off the west of Norway and rather rough in the western part of the Channel, but moderate to smooth elsewhere.

Barometer falling over our Islands and the greater part of Scandinavia, but rising elsewhere. Pressure highest (30·3 ins. and upwards) over Denmark and North Germany, with a large shallow area of relatively low readings over the north of Spain and a depression off the north-west of Norway. Depression in north subsequently moving south-eastwards, and high pressure system gradually breaking up.

Wednesday, March 9.

Weather cloudy generally, with mist or fog in many places, but fine in the east and south-east of France. Rain or sleet falling later on some part of our north-east coasts.

Temperature risen a little in most places; readings over our Islands ranging from 43° at Malin Head and Mullaghmore to 35° at York. Frost occurring in the north of Scotland at night.

Wind Easterly or North-Easterly over South Germany and the greater part of France, but North-Westerly or Westerly elsewhere; light or moderate in force generally, but strong at some of the Norwegian stations. Subsequently shifting to the eastward in the north of Scotland.

Sea slight or smooth generally.

Barometer falling at all but the western French stations. Pressure high (30·1 ins.) over Germany and the south of France, and also over our south-west coasts and the Bay of Biscay, but large area of low readings lying over the north of Sweden. Rise taking place later at many stations.

Thursday, March 10.

Weather dull and misty over the greater part of our Islands, with snow in the north of Scotland. Fine at most of the Continental stations, but rainy in Germany. Snow or sleet falling later over all the northern parts of the United Kingdom, heavily in Scotland.

Temperature risen a few degrees over Germany and the east of England but fallen elsewhere; readings over our Islands ranging from 44° at Belmullet to 26° at Sumburgh Head. Frost occurring in Scotland at night.

Wind moderate to strong from North-West in Scandinavia and Denmark, but Northerly or North-Easterly in the south of our Islands, Southerly in the north of Ireland, and variable in France and the south of Ireland. Southerly or South-Easterly breezes setting in later at many of our western stations.

Sea rather rough at Christiansund and Stornoway, but slight or smooth elsewhere.

Barometer rising at all but our western stations. Areas of high pressure (30·1 ins. and upwards) lying respectively over Scotland and the north of England and over the Bay of Biscay, with a large shallow depression over the north of Scandinavia. Shallow depression subsequently appearing off the north-west of Ireland.

Friday, March 11.

Weather fine in the east and south-east of England, as well as at many of the Continental stations, but cloudy elsewhere, with snow in Scotland and also at Christiansund and Cuxhaven. Rain or sleet falling later over the northern parts of Ireland and England.

Temperature falling generally; readings over our Islands ranging from 48° at Valencia to 28° at Sumburgh Head and Nairn. Frost occurring in most parts of the Kingdom at night.

Wind moderate from North and North-East over Scotland and the north of Ireland, from South or South-East over the greater part of England, and from East or North-East in France. Subsequently increasing to strong breeze from North-East in the north of Ireland.

Sea rather rough at Christiansund, Malin Head, and Valencia, and moderate at Stornoway, but slight or smooth elsewhere.

Barometer rising a little in Scandinavia and Denmark, but falling elsewhere. Areas of high pressure (30·1 ins. and upwards) lying respectively over the Netherlands and the north-west of Scotland. Lowest pressures reported over the north of Sweden, but shallow depression lying over the north-east of England and the north of Ireland. Depressions subsequently moving slowly south-eastwards, and barometer rising in north.

Synoptic Charts.

TEMPERATURE AND WEATHER

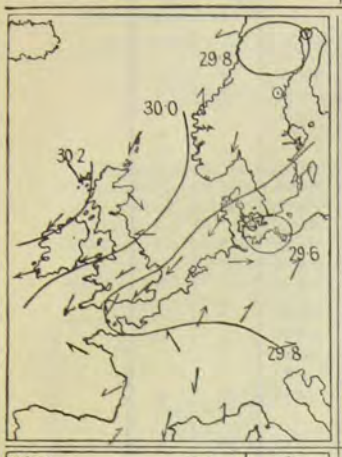
at 8 a.m.

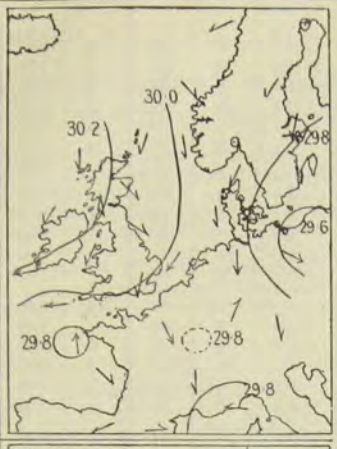
SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

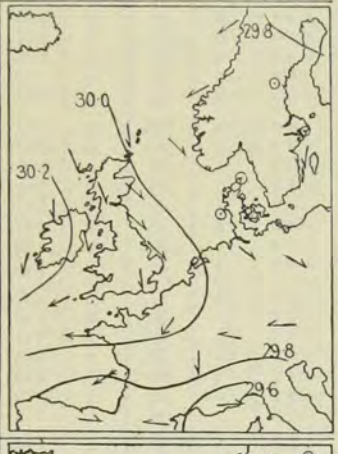
Synoptic Charts.

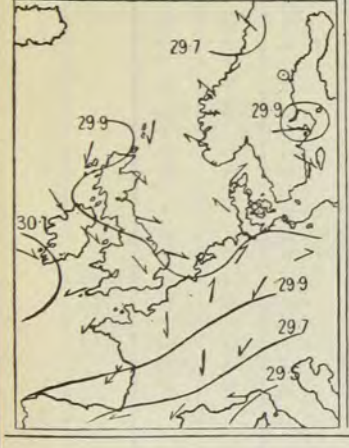
PRESSURE AND WIND.

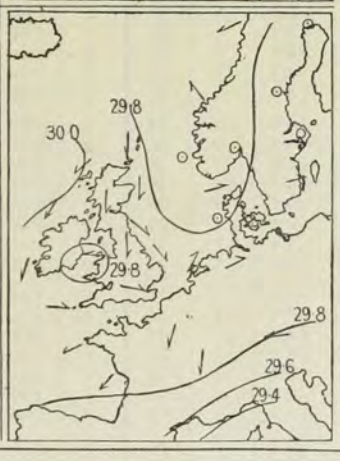
8 a.m. | **6 p.m.**











Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Saturday, March 12.

Weather fine in Ireland, Scotland, Scandinavia, and the south of France, but cloudy elsewhere, with snow over all the more northern and eastern parts of England, and rain over the eastern part of the Channel. Improvement taking place over England later.

Temperature risen a little in Germany and the east of France, but fallen elsewhere; readings over our Islands ranging from 43° at Jersey and Dungeness to 27° at Ardrossan. Hard frost occurring generally at night, the lowest readings over our Islands being 19° at Parsonstown and 21° at Oxford and Cambridge.

Wind moderate from North and North-West in Scotland, and fresh or strong from North-East over Denmark and the greater part of England and Ireland, but moderate from South-West in Germany and the north of France and variable in the south of France.

Sea rough off the east of England and the west of Ireland, as well as at Donaghadee, but moderate to smooth elsewhere.

Barometer rising in Scandinavia and the west and north of our Islands, but fallen elsewhere. Pressure highest (30·2 ins. and upwards) off the west of Scotland, with a small depression over the south of Denmark and another over the south-east of England. The former disturbance subsequently moving away eastwards and the latter south-eastwards, and barometer rising over the whole Kingdom.

Sunday, March 13.

Weather fair generally, but cloudy at some of the French and German stations, with snow at Munich and Rochefort. Snow showers falling later over the eastern parts of Great Britain.

Temperature fallen generally; readings over our Islands ranging from 36° at Scilly to 25° at Shields and Loughborough and 23° at Parsonstown. Sharp frost occurring over the United Kingdom at night.

Wind moderate North-Westerly on our north and east coasts, and also on the eastern shores of the North Sea, but North-Easterly or Easterly elsewhere; strong to a gale at many of the French stations.

Sea rough, or rather so, on our south and east coasts, but moderate to smooth elsewhere.

Barometer falling in Norway, the north of Scotland, and the south of France, but rising in most other localities. Depressions of previous day passing away over Germany and France, and high pressure system appearing off west of Ireland; fall taking place generally later.

Monday, March 14.

Weather fair over the greater part of western Europe, but snow falling at many of our north-western stations as well as over South Germany and the east of France. Rain or sleet falling later in the west and north of England.

Temperature fallen a little at our southern and most of the Continental stations, but risen elsewhere; readings over our Islands ranging from 42° at Belmullet to 25° at Oxford; frost occurring over the greater part of the kingdom at night.

Wind light Easterly in Norway, and North-Easterly in the north of Scotland, but North-Westerly to Westerly in other parts of our Islands, and North-Easterly in France, subsequently increasing from North-East or North at the Irish stations.

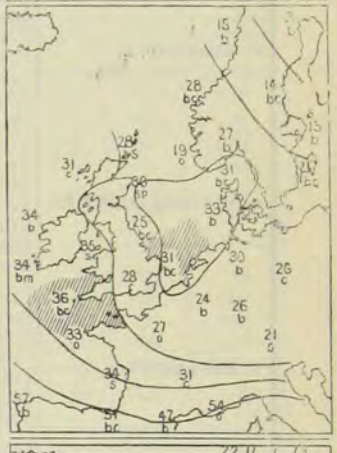
Sea rather rough at Spurn Head, but moderate or slight elsewhere.

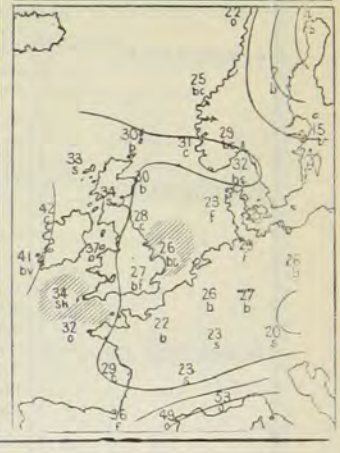
Barometer falling generally. Pressure highest off the south-west of Ireland, and lowest over the Gulf of Genoa, but small depression lying near the mouth of the Firth of Clyde. Depression subsequently moving slowly southwards, and barometer rising slightly on our extreme north-west coasts.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 37 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	46	22	35·9	27·9	31·8	− 7·1	0	71	4	0·09	−0·61	*	*
	Stornoway	45	25	37·9	30·1	33·9	− 6·0	0	57	6	1·08	+0·17	20	25
	Wick	48	25	39·0	29·4	34·1	− 4·8	0	55	6	0·39	−0·06	*	*
	Lairg ℌ	42	16	33·6	22·4	27·8	−10·3	0	99	5	0·31	−0·39	*	*
	Glencarron ℌ	45	18	37·1	25·4	31·1	− 6·8	0	76	5	0·33	?	*	*
	Fort Augustus ℌ	46	12	39·0	24·7	31·6	− 7·1	0	73	4	0·14	?	*	*
1. SCOTLAND, E.	Nairn	48	23	39·3	28·0	33·5	− 6·4	0	60	4	0·51	+0·11	*	*
	Aberdeen	48	24	39·0	29·6	34·2	− 4·8	0	55	6	1·17	+0·65	31	39
	Braemar ℌ	45	22	38·0	25·8	31·7	− 4·3	0	72	4	0·73	+0·15	*	*
	Ochtertyre ℌ	52	23	41·3	27·4	34·1	− 4·2	0	55	1	0·59	−0·12	*	*
	Leith	48	24	42·4	30·0	36·1	− 4·7	1	42	3	0·64	+0·33	*	*
	Marchmont ℌ	46	20	37·9	28·4	33·0	− 5·5	0	63	4	1·00	+0·49	*	*
2. ENGLAND, N.E.	Alnwick Castle	43	26	38·6	30·9	34·6	− 5·0	0	52	5	0·87	+0·38	*	*
	Durham	46	21	39·9	27·7	33·6	− 5·9	0	59	4	1·13	+0·66	25	32
	Shields	43	22	40·1	30·6	35·2	− 4·9	0	48	5	0·61	+0·25	*	*
	Scarborough ℳ	45	25	39·8	30·9	35·2	− 4·6	0	48	6	0·78	+0·37	*	*
	York	51	23	43·3	30·4	36·7	− 3·6	4	40	3	0·28	−0·10	29	37
	Spurn Head	47	27	41·0	32·7	36·7	− 3·4	0	37	3	0·16	?	*	*
3. ENGLAND, E.	Hillington ℳ	49	20	43·4	27·6	35·3	− 4·9	4	50	2	0·33	−0·03	33	41
	Yarmouth	44	23	40·0	31·3	35·5	− 5·4	0	46	3	0·58	+0·17	*	*
	Geldeston	48	20	41·9	28·2	34·9	− 6·0	0	50	2	0·27	−0·08	28	35
	Cambridge	51	21	44·7	28·4	36·3	− 4·6	8	48	1	0·06	−0·24	30	38
	Rothamsted	49	20	42·2	28·5	35·2	− 5·8	1	46	2	0·19	−0·20	*	*
	Ingatestone	47	20	42·9	29·3	35·9	− 5·9	3	44	3	0·19	−0·12	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	49	23	43·3	31·1	37·0	− 4·0	4	38	2	0·41	+0·05	26	33
	Loughborough	51	22	44·6	31·7	38·0	− 2·8	7	37	4	0·39	+0·07	*	*
	Leicester	49	21	43·9	30·8	37·2	− 3·3	5	39	3	0·41	+0·07	20	25
	Cheadle ℳ	47	19	41·3	28·9	34·9	− 4·9	0	50	4	0·49	−0·02	*	*
	Churchstoke ℳ	51	14	42·3	26·1	34·0	− 6·6	1	54	3	0·29	−0·16	17	21
	Hereford ℳ	51	21	43·6	31·4	37·3	− 4·2	4	37	3	0·37	−0·01	*	*
	Cirencester	45	15	39·3	29·3	34·2	− 7·0	0	55	3	0·22	−0·25	21	26
	Oxford	47	21	42·1	30·6	36·2	− 5·6	0	39	2	0·41	+0·06	21	26
5. ENGLAND, S.	London†	48	23	42·9	31·1	36·8	− 5·5	3	37	2	0·42	+0·10	13	16
	Strathfield Turgiss ℳ	50	20	43·9	30·4	37·0	− 5·2	5	41	2	0·40	+0·08	*	*
	Dungeness	46	23	43·1	31·9	37·3	− 5·8	3	35	2	0·37	−0·05	*	*
	Hastings (St. Leonard's)	47	25	42·6	32·2	37·3	− 5·3	2	34	2	0·31	−0·11	32	40
	Southampton	48	23	44·8	31·9	38·2	− 4·6	8	36	3	0·39	−0·06	22	28
	Hurst Castle	46	21	42·7	32·3	37·4	− 5·7	2	34	3	0·20	−0·23	*	*
	Stowel ℳ	47	20	40·8	30·7	35·6	− 6·4	0	45	2	1·13	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	49	17	40·5	28·6	34·4	− 5·8	0	53	3	0·25	−1·50	*	*
	Glasgow	48	20	38·8	29·4	34·0	− 6·2	0	56	3	0·78	+0·18	28	35
	Ardrossan	46	22	39·7	29·4	34·4	− 6·1	0	53	2	0·65	+0·05	*	*
	Glenlee ℌ	47	14	40·3	26·4	33·1	− 6·3	0	62	3	0·35	?	*	*
	Douglas (Isle of Man)	47	25	42·3	31·6	36·8	− 5·2	1	36	3	0·29	−0·38	23	29
7. ENGLAND, N.W.	Newton Reigny (Penrith)	53	11	40·3	26·4	33·1	− 6·6	0	62	3	0·52	−0·03	24	30
	Barrow-in-Furness	46	25	41·9	33·6	37·6	− 4·4	0	31	3	0·42	−0·14	*	*
	Stonyhurst	45	17	40·3	28·7	34·3	− 6·2	0	54	2	0·61	−0·19	29	37
	Blackpool ℳ	46	20	41·7	31·0	36·2	− 6·0	0	41	2	0·58	+0·09	19	24
	Manchester	48	22	40·8	29·6	35·0	− 6·2	0	49	1	0·27	−0·26	*	*
	Liverpool Obsy (Bidston)	49	28	42·3	33·1	37·6	− 4·3	1	31	2	0·43	+0·03	*	*
	Llandudno ℳ	48	28	42·1	33·7	37·8	− 5·4	0	28	3	0·76	+0·31	16	20
	Holyhead	48	33	43·1	36·1	39·5	− 3·9	3	21	4	0·73	+0·23	*	*
8. ENGLAND, S.W.	Llandovery	50	14	44·1	25·6	34·6	− 8·2	6	57	4	0·84	−0·01	*	*
	Pembroke	47	29	42·7	35·0	38·7	− 6·7	2	24	3	0·56	−0·04	26	33
	Arlington (N. Devon)	49	21	41·9	30·1	35·8	− 6·0	0	43	3	0·71	−0·09	*	*
	Cullompton ℳ	52	15	43·0	29·6	36·1	− 6·6	3	43	3	0·21	−0·36	21	26
	Falmouth	49	26	44·1	33·7	38·8	− 5·9	6	30	2	0·39	−0·38	26	33
	Plymouth	48	26	44·1	32·7	38·2	− 6·0	6	33	2	0·38	−0·20	26	33
	Prawle Point	49	28	43·0	33·6	38·2	− 5·7	3	29	2	0·15	?	*	*
9. IRELAND, N.	Malin Head	48	30	41·4	34·6	37·9	− 3·3	0	29	6	0·77	?	*	*
	Londonderry	51	26	46·5	31·8	38·9	− 2·2	13	37	6	0·39	−0·24	*	*
	Mullaghmore	52	28	45·4	35·6	40·4	− 1·5	10	24	6	0·43	−0·27	*	*
	Belmullet	51	29	45·6	35·6	40·5	− 4·2	10	24	7	0·62	?	*	*
	Markree Castle	50	18	44·2	30·3	37·0	− 4·6	6	41	6	0·28	−0·28	23	29
	Brookeborough	49	20	43·3	29·7	36·3	− 3·7	4	43	4	0·26	?	*	*
	Armagh	48	24	43·0	29·9	36·3	− 5·5	3	42	4	0·39	−0·10	20	25
	Donaghadee	48	31	42·6	34·6	38·5	− 4·0	2	26	3	0·15	−0·32	*	*
	Edgeworthstown	49	21	43·1	29·6	36·2	− 4·2	3	43	2	0·41	−0·26	*	*
10. IRELAND, S.	Dublin	49	26	43·4	32·9	38·0	− 4·7	4	31	4	0·74	+0·27	20	25
	Parsonstown	49	19	44·1	29·7	36·7	− 5·6	6	43	3	0·39	−0·14	19	24
	Kilkenny	50	24	44·6	31·3	37·8	− 4·0	7	38	2	0·30	−0·22	*	*
	Waterford	48	25	44·7	32·4	38·4	− 5·5	8	34	3	0·44	−0·25	*	*
	Roche's Point	49	29	45·4	36·1	40·6	− 3·8	10	22	3	0·39	−0·46	*	*
	Valencia	52	29	47·3	35·1	41·0	− 4·4	15	26	3	0·73	−0·25	36	45
	Killarney	52	20	45·9	30·9	38·2	− 5·9	11	40	2	0·39	?	*	*
	Foynes	52	25	45·9	32·1	38·8	− 4·2	11	36	3	0·29	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	54	33	45·9	38·6	42·1	− 4·2	15	10	3	0·15	−0·38	*	*
	Jersey (Noirmont)	47	32	42·1	36·1	39·0	− 4·2	0	20	1	0·14	−0·39	16	20

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 11.] *Second Series.* WEEK ENDING MONDAY, 21ST MARCH, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 44.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	50	10	42·9	28·8	35·6	4 below.	3	− 6	45	+13	109	+ 25	354 *	+ 12
	1. SCOTLAND, EAST	53	16	43·0	26·5	34·5	5 below.	3	−13	53	+22	141	+ 20	413	+ 22
	2. ENGLAND, N.E.	47	18	40·4	27·7	33·9	7 below.	0	−16	57	+30	105	− 22	438	+ 87
	3. ENGLAND, EAST	47	19	39·2	25·0	31·8	10 below.	0	−23	71	+43	67	− 94	539	+172
	4. MIDLAND COUNTIES	46	18	39·3	24·8	31·9	9 below.	0	−25	71	+44	107	− 69	515	+156
	5. ENGLAND, SOUTH	46	15	39·0	27·3	33·0	10 below.	0	−27	63	+42	104	− 28	424	+143
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	49	22	41·8	29·9	35·7	5 below.	0	−16	44	+22	112	− 20	323	+ 37
	7. ENGLAND, N.W.	46	18	40·1	27·8	33·9	9 below.	0	−18	57	+36	92	− 43	393	+113
	8. ENGLAND, S.W.	50	14	40·4	27·2	33·6	10 below.	0	−26	59	+45	137	− 97	319	+150 †
	9. IRELAND NORTH	53	21	44·1	29·9	36·8	5 below.	6	−15	42	+21	176	− 3	273	+ 23
	10. IRELAND, SOUTH	49	19	43·9	28·3	35·8	8 below.	5	−24	47	+33	229	− 30	238	+ 70
	— CHANNEL ISLANDS	48	28	41·8	32·1	36·8	8 below.	0	−29	36	+31	157	−116	162	+ 83

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 44.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	3	1	5 less.	49	− 5	10·2	+ 1·6	41	49	154	+24	22	+ 3
	1. SCOTLAND, EAST	3	2	3 less.	34	− 5	4·6	− 2·1	39	47	219	+32	31	+ 4
	2. ENGLAND, N.E.	4	3	1 less.	30	− 9	2·9	− 3·1	34	41	214	+74	30	+10
	3. ENGLAND, EAST	3	2	1 less.	25	−15	2·5	− 2·2	35	42	245	+67	33	+ 8
	4. MIDLAND COUNTIES	3	2	2 less.	27	−11	3·1	− 2·6	24	31	198	+38	27	+ 5
	5. ENGLAND, SOUTH	3	3	1 less.	26	−12	3·3	− 2·7	27	33	193	+29	26	+ 3
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	3	2	4 less.	38	−10	8·5	− 1·1	32	39	172	+36	24	+ 5
	7. ENGLAND, N.W.	2	2	4 less.	30	−13	4·5	− 2·9	37	44	202	+61	28	+ 8
	8. ENGLAND, S.W.	2	4	2 less.	31	−13	4·5	− 5·6	41	49	245	+62	33	+ 8
	9. IRELAND, NORTH	3	2	4 less.	38	−13	6·0	− 1·7	28	34	190	+33	26	+ 4
	10. IRELAND, SOUTH	2	4	3 less.	33	−15	6·7	− 2·8	35	42	229	+45	31	+ 6
	— CHANNEL ISLANDS	5	4	2 less.	34	−14	3·9	− 3·8	45	54	303	+61	40	+ 8

General Remarks.

Weather has continued cold and unseasonable in all parts of the Kingdom. Heavy falls of snow were experienced at most of our more southern stations as the period commenced, and slight snow or sleet showers were subsequently of frequent occurrence at nearly all our stations.

Temperature has continued below the mean in all districts, the deficit ranging from 4° or 5° in Scotland and in "Ireland, N." to 7° in "England, N.E.", and to as much as 10° over eastern, southern, and south-western England. In some parts of the south and south-west of England the thermometer has been lower during this period than it was during any week in the winter. At Stowell the average for the week was only 28°·9, being 25°·4 below the mean for the season. The highest of the maxima, which were registered on the 21st at most of the English and Irish stations and on various dates in Scotland, ranged from 46° in the "Midland Counties", "England, S.", and "England, N.W.", to 58° in "England, E." and "Ireland, N." The lowest of the minima, which were recorded on irregular dates, varied from 10° in "Scotland, N.", 14° in "England, S.W.", 15° in "England, S.", and 16° in "Scotland, E.", to 22° in "Scotland, W." and 28° in the "Channel Islands".

Rainfall has been less than the mean in all districts.

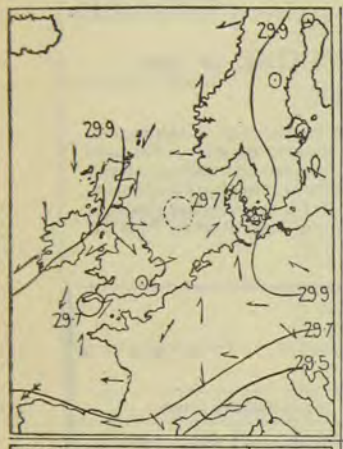
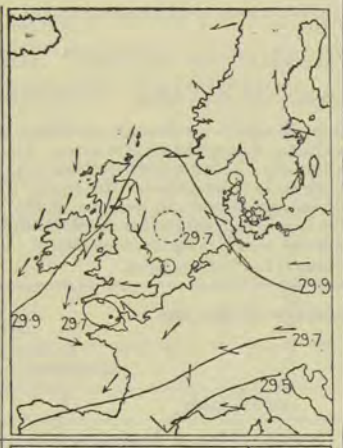
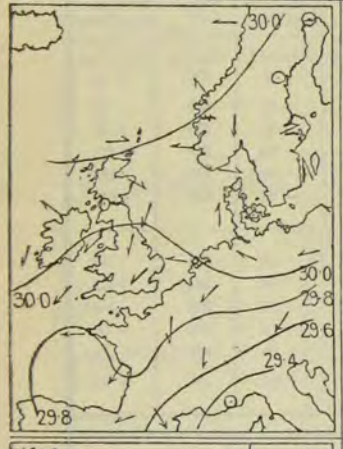
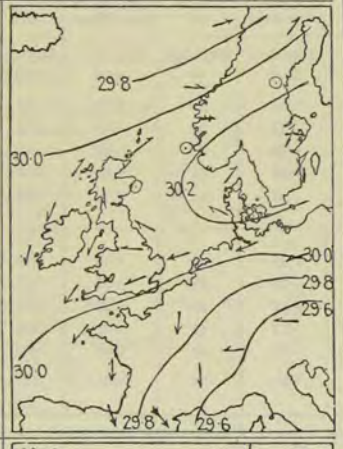
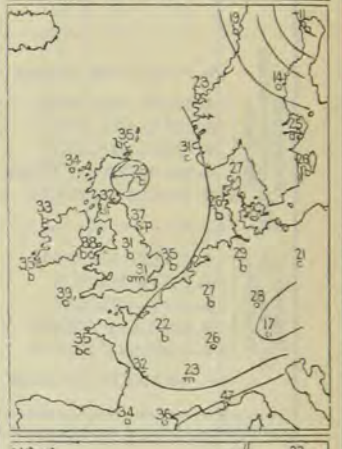
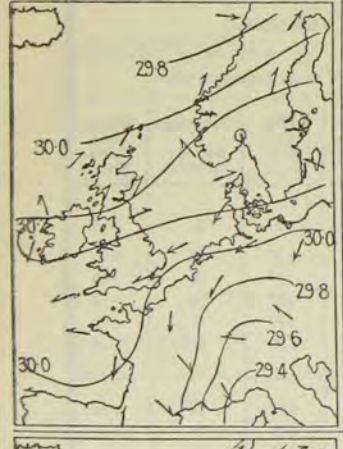
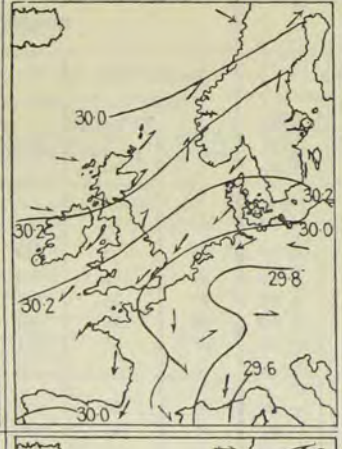
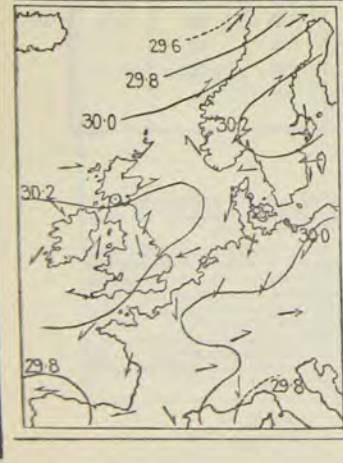
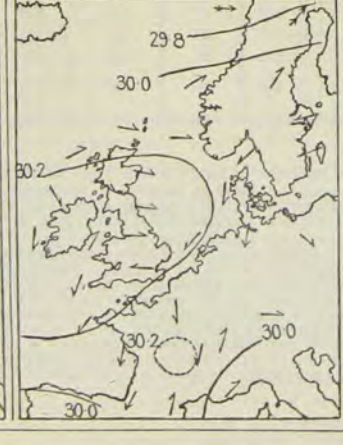
Bright sunshine shows an increase on that reported of late, the percentage of the possible amount of duration ranging from 31 in the "Midland Counties" to 49 in "Scotland, N." and "England, S.W.", and to 54 in the "Channel Islands".

Depressions observed.—During the earlier part of the period the small depression which had travelled down the Irish Sea on the 14th continued to move southwards, and finally disappeared over the Bay of Biscay. The distribution of pressure over our Islands then became anticyclonic and no other depression of importance appeared in our immediate neighbourhood. At the end of the period, however, the barometer was falling very briskly on all our western coasts and the conditions were becoming cyclonic. Light or moderate Northerly or North-Easterly winds were generally prevalent over England and Ireland, but in Scotland light South-Westerly or Westerly airs were experienced. At the close of the week, however, strong Southerly and South-Easterly winds had sprung up in Ireland and were gradually spreading to all parts of the Kingdom.

* This value has been altered slightly owing to the receipt of further information.
† The corresponding value for last week should be "+ 105."

A 50830. 350.—3/87. Wt. 44. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, March 15.** *Weather* fine and bright over Ireland and the west of Scotland, as well as at many of the Continental stations, but cloudy elsewhere, with snow in the eastern and southern parts of Great Britain and a dense high fog in London. *Temperature* risen slightly in the south of England, but fallen elsewhere; readings over our Islands ranging from 42° at Scilly to 26° at Shields. Maximum below 35° at some of our southern stations. *Wind* moderate to strong from North or North-East on our western and northern coasts, but light South-Westerly in the north of France, Southerly in the Netherlands, and variable in Scandinavia. *Sea* rather rough at many of our western and northern stations, but smooth or nearly so in the east and south. *Barometer* falling at all but our extreme western and northern stations. Pressure highest to the westward of our Islands, but relatively high over Sweden and the Baltic. Lowest readings reported over Spain and the western part of the Mediterranean, but shallow depression lying near the mouth of the English Channel and another over the North Sea. No important change later.	
		**Wednesday, March 16.** *Weather* fair generally, but snow showers reported at some of our eastern and southern stations. Snow falling later in South Germany and the east of France. *Temperature* fallen a little in the north and also in the extreme south of our Islands, but risen elsewhere; readings over the United Kingdom ranging from 39° at Scilly to 25° at Parsonstown and 23° at Aberdeen. *Wind* South-Westerly in the extreme north of Scotland, but Easterly or North-Easterly elsewhere; light or moderate in force generally, but strong at the mouth of the Channel. *Sea* moderate to smooth. *Barometer* rising in all localities excepting South Germany and the south-east of France. Areas of high pressure (30·1 ins. and upwards) lying respectively over Sweden and to the westward of our Islands. Depression lying over Gulf of Genoa and shallow disturbance over Bay of Biscay; latter subsequently moving eastwards over France.	
		**Thursday, March 17.** *Weather* fair over the greater part of North-Western Europe, but snow falling in Germany, Belgium, and the east of France. Snow showers falling later at many of the English stations. *Temperature* risen in the north of our Islands, but fallen slightly elsewhere; readings over the United Kingdom ranging from 40° at Sumburgh Head and 39° at Scilly to 25° at Parsonstown and Oxford. Sharp frost occurring over England at night. *Wind* South-Westerly over Scotland and the north of Scandinavia, but North-Easterly at our southern stations and North-Westerly in the south of France, strong to a gale over the Netherlands, but light or moderate elsewhere. *Sea* high at Cape Grisnez and rather rough at Yarmouth, but moderate to smooth elsewhere. *Barometer* rising generally. Pressure highest (30·3 ins. and upwards) over the south of Sweden, but band of relatively high readings extending thence across the North Sea and Northern England to the West of Ireland. Well marked depression lying over Gulf of Genoa. No important change later.	
		**Friday, March 18.** *Weather* fair in most places, but snow showers falling at some of our eastern and southern stations, and steady snow in Germany and Belgium. *Temperature* risen slightly in our Islands, but fallen at many of the Continental stations; readings over the United Kingdom ranging from 42° in the northern parts of Ireland and Scotland to 28° at Loughborough. Hard frost occurring over England at night. *Wind* South-Westerly in the northern parts of Scotland and Scandinavia, but North-Easterly elsewhere; light to fresh in force generally. Subsequently becoming variable at our more central stations. *Sea* rather rough at Yarmouth, Cape Grisnez, and Nice, but moderate to smooth elsewhere. *Barometer* rising at all but the Scandinavian and Danish stations. Areas of high pressure lying respectively over our Islands and Sweden, with depressions over Spain, Germany, and the south-east of France. Swedish high pressure system subsequently breaking up.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

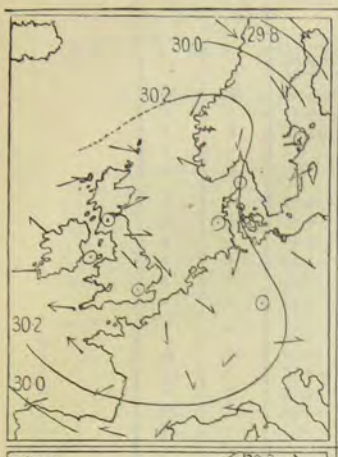
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Saturday, March 19.

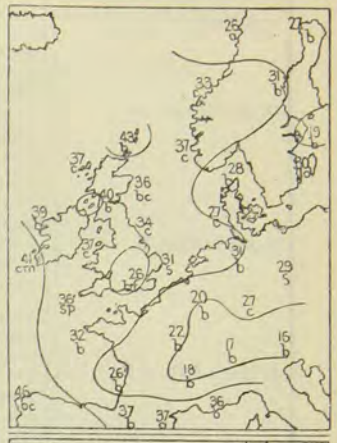
Weather fair generally, but snow showers reported at some of our eastern stations, and fog over central England. Fog clearing later.

Temperature fallen a little in most places; readings over our Islands ranging from 43° at Sumburgh Head and 41° at Valencia to 24° at Oxford. Frost occurring generally at night.

Wind light Westerly in Scotland, moderate North-Westerly in Scandinavia, and Easterly or North-Easterly over France and the south of England.

Sea moderate on our south-west coasts and also at Yarmouth, but moderate to smooth elsewhere.

Barometer rising generally. Large anticyclone with readings above 30·2 ins. covering the greater part of western Europe. Fall taking place later over our Islands and France.



Sunday, March 20.

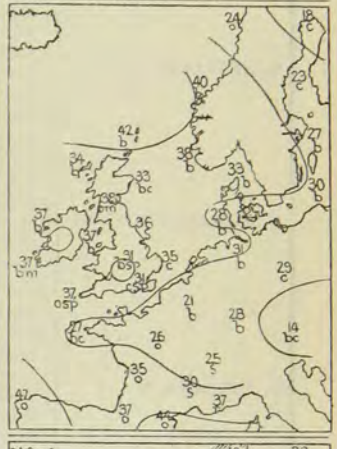
Weather fine in the west and north of our Islands and also on the eastern shores of the North Sea, but cloudy elsewhere, with steady snow in the east of France and snow showers at many of the English stations.

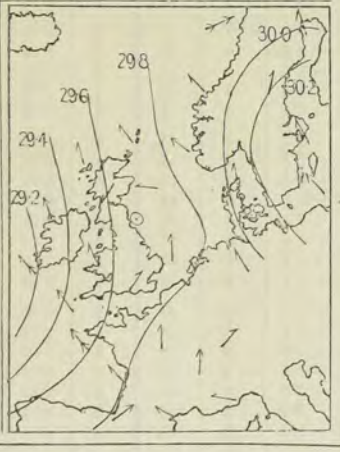
Temperature risen at our south-eastern and many of the continental stations, but fallen elsewhere; readings over our Islands ranging from 42° at Sumburgh Head to 29° at Oxford and 28° at Parsonstown. Sharp frost occurring over England at night.

Wind light from East or North-East over England, Ireland, Germany, and France, but Southerly on our northern coasts. Subsequently veering to South-East in Ireland.

Sea moderate to smooth.

Barometer falling at all but the Scandinavian and Danish stations. Pressure highest, 30·4 ins. and upwards, over Sweden, the Baltic, and North Germany, with a shallow depression over the north-west of Spain. Fall becoming general later.





Monday, March 21.

Weather fair in most localities, but snow showers falling along the east coast of Great Britain, and overcast skies reported on our extreme south-west coasts.

Temperature risen at many of the Continental stations, but fallen in our Islands; readings over the United Kingdom ranging from 41° at Valencia to 22° at Loughborough. Rise taking place over England later.

Wind variable over the greater part of England and France, and light North-Easterly in the west of France, but South-Easterly elsewhere; strong to a gale on the eastern shores of the North Sea, subsequently increasing to a gale in the west and south of Ireland.

Sea rough at Bodö, and rather rough at Valencia and Brest, but moderate to smooth elsewhere.

Barometer falling generally. Pressure highest, 30·4 ins. and upwards, over the south of Sweden, and lowest, 29·7 ins. and less, off our extreme western coasts, but area of relatively low readings lying over England and central France. Depression subsequently approaching our south-west coasts, and barometer falling fast in west.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 41 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	48	24	43·9	32·9	38·2	− 0·8	5	32	5	0·18	−0·47	*	*
	Stornoway	49	25	44·6	30·0	37·1	− 3·2	7	42	2	0·09	−0·79	41	49
	Wick	50	23	45·7	30·3	37·8	− 2·3	10	42	3	0·14	−0·29	*	*
	Lairg ℘	40	10	36·3	23·9	29·9	− 8·9	0	85	3	0·17	−0·51	*	*
	Glencarron ℘	49	19	43·3	28·3	35·3	− 3·5	4	45	3	0·19	?	*	*
	Fort Augustus ℘	49	21	?43·5	?27·5	?35·3	−?4·2	?4	?50	1	0·02	?	*	*
1. SCOTLAND, E.	Nairn	48	25	44·7	28·3	36·3	− 3·9	8	48	0	—	−0·39	*	*
	Aberdeen	52	19	45·0	27·1	35·8	− 3·4	8	53	4	0·14	−0·37	39	47
	Braemar ℘	45	16	38·5	19·3	28·6	− 7·7	0	94	2	0·12	−0·48	*	*
	Ochtertyre ℘	53	24	45·7	27·4	36·3	− 3·0	10	52	3	0·27	−0·38	*	*
	Leith	49	27	43·3	29·4	36·1	− 5·2	4	43	5	0·30	−0·01	*	*
	Marchmont ℘	46	24	40·6	27·4	33·8	− 5·3	0	57	5	0·52	0·00	*	*
2. ENGLAND, N.E.	Alnwick Castle	42	19	39·1	27·9	33·3	− 6·8	0	61	5	0·22	−0·27	*	*
	Durham	43	18	40·8	26·8	33·6	− 6·2	0	59	5	0·23	−0·25	40	48
	Shields	44	23	41·6	27·0	34·1	− 6·3	0	55	3	0·23	−0·12	*	*
	Scarborough ℳ	44	23	40·2	28·2	34·0	− 6·4	0	56	5	0·55	+0·15	*	*
	York	47	21	41·9	25·1	33·3	− 7·8	0	61	2	0·08	−0·30	27	33
	Spurn Head	40	29	38·9	31·1	34·9	− 5·9	0	50	4	0·48	?	*	*
3. ENGLAND, E.	Hillington ℳ	47	20	41·2	23·3	32·0	− 8·5	0	70	2	0·18	−0·16	32	39
	Yarmouth	40	23	37·0	27·6	32·0	− 9·4	0	70	4	0·21	−0·19	*	*
	Geldeston	44	19	38·8	25·6	32·0	− 9·6	0	70	3	0·15	−0·20	35	42
	Cambridge	46	18	42·1	22·7	32·1	− 9·5	0	66	1	0·10	−0·20	38	46
	Rothamsted	41	20	37·3	24·8	30·9	−10·4	0	78	2	0·32	−0·06	*	*
	Ingatestone	40	24	38·5	26·0	32·1	− 9·8	0	69	3	0·25	−0·05	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	44	19	41·7	23·7	32·4	− 8·9	0	67	4	0·19	−0·16	24	29
	Loughborough	45	22	41·6	24·9	33·0	− 8·3	0	63	2	0·13	−0·19	*	*
	Leicester	44	24	40·8	26·2	33·3	− 7·5	0	61	2	0·19	−0·15	15	18
	Cheadle ℳ	41	23	37·7	25·7	31·5	− 8·5	0	74	2	0·06	−0·44	*	*
	Churchstoke ℳ	40	21	37·7	23·3	30·3	−10·5	0	82	2	0·09	−0·33	21	25
	Hereford ℳ	45	24	40·1	26·6	33·2	− 8·9	0	62	2	0·14	−0·24	*	*
	Cirencester	40	18	36·3	23·9	29·9	−11·9	0	85	3	0·55	+0·08	31	47
	Oxford	43	18	38·7	24·4	31·3	−10·7	0	75	4	0·47	+0·12	28	34
5. ENGLAND, S.	London†	46	23	39·6	26·6	32·9	− 9·9	0	64	3	0·44	+0·13	18	22
	Strathfield Turgiss ℳ	46	15	39·4	22·6	35·9	− 6·9	0	43	3	0·54	+0·22	*	*
	Dungeness	42	23	39·0	28·1	33·4	−10·3	0	60	2	0·11	−0·31	*	*
	Hastings (St. Leonard's)	42	27	38·1	28·5	33·2	− 9·7	0	62	5	0·17	−0·25	32	39
	Southampton	44	23	40·9	26·7	33·6	− 9·8	0	59	3	0·45	0·00	32	39
	Hurst Castle	46	24	39·7	26·3	32·8	−11·1	0	64	2	0·26	−0·14	*	*
	Stowell ℳ	43	17	36·3	22·0	28·9	−13·4	0	92	3	0·41	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	48	22	42·1	29·0	35·4	− 5·3	0	45	6	0·31	−1·24	*	*
	Glasgow	45	28	40·4	31·1	35·6	− 5·2	0	45	2	0·22	−0·33	13	16
	Ardrossan	47	28	43·4	31·6	37·2	− 3·7	4	35	1	0·01	−0·54	*	*
	Glenlee ℘	49	23	41·6	27·0	34·1	− 6·2	0	55	1	0·11	?	*	*
	Douglas (Isle of Man)	46	26	41·6	30·7	36·0	− 6·4	0	42	3	0·44	−0·20	51	61
7. ENGLAND, N.W.	Newton Reigny (Penrith)	44	18	40·0	24·5	32·0	− 8·3	0	70	3	0·13	−0·37	27	33
	Barrow-in-Furness	45	28	41·3	29·4	35·2	− 7·7	0	48	2	0·03	−0·49	*	*
	Stonyhurst	43	20	39·5	24·9	32·0	− 9·3	0	70	3	0·08	−0·67	39	47
	Blackpool ℳ	42	22	40·7	25·3	32·8	−10·1	0	64	1	0·11	−0·37	41	49
	Manchester	42	24	38·1	26·9	32·3	− 9·3	0	68	2	0·15	−0·38	*	*
	Liverpool Obsy (Bidston)	41	27	39·4	28·7	34·9	− 7·5	0	50	2	0·11	−0·27	*	*
	Llandudno ℳ	43	26	40·5	29·7	34·9	− 8·7	0	50	1	0·22	−0·23	40	48
	Holyhead	46	31	41·4	32·6	36·9	− 7·1	0	36	4	0·46	−0·04	*	*
8. ENGLAND, S.W.	Llandovery	46	17	41·3	23·9	32·3	−10·5	0	68	1	0·20	−0·53	*	*
	Pembroke	45	30	40·3	31·3	35·7	− 9·1	0	44	1	0·35	−0·18	42	51
	Arlington (N. Devon)	45	20	38·1	24·1	30·9	−11·6	0	78	2	0·46	−0·28	*	*
	Cullompton ℳ	47	14	39·7	22·6	30·9	−12·2	0	78	2	0·46	−0·08	40	48
	Falmouth	43	28	40·3	30·4	35·2	− 9·8	0	48	2	0·56	−0·19	37	45
	Plymouth	50	27	42·8	28·8	35·6	− 9·2	2	45	2	0·53	−0·02	43	52
	Prawle Point	46	24	40·0	29·1	34·4	− 9·6	0	53	4	0·41	?	*	*
9. IRELAND, N.	Malin Head	46	29	43·4	34·0	38·6	− 2·9	4	28	3	0·19	?	*	*
	Londonderry	53	28	48·7	30·9	39·5	− 2·1	19	41	3	0·17	−0·46	*	*
	Mullaghmore	48	27	44·3	30·6	37·3	− 5·4	6	40	3	0·23	−0·42	*	*
	Belmullet	48	30	44·9	31·9	38·2	− 6·9	8	36	2	0·20	?	*	*
	Markree Castle	47	21	44·3	25·1	34·4	− 8·0	6	59	5	0·26	−0·29	27	33
	Brookeborough	48	21	44·0	26·1	34·8	− 6·0	6	55	1	0·23	?	*	*
	Armagh	45	23	41·7	28·0	34·7	− 7·5	0	51	2	0·12	−0·35	29	35
	Donaghadee	45	33	43·3	34·3	38·7	− 4·5	4	27	2	0·22	−0·23	*	*
	Edgeworthstown	47	22	42·7	27·9	35·1	− 5·7	2	48	2	0·11	−0·54	*	*
10. IRELAND, S.	Dublin	46	28	42·4	31·4	36·7	− 6·7	1	36	4	0·20	−0·26	29	35
	Parsonstown	45	21	42·7	24·6	33·4	− 9·2	2	60	2	0·40	−0·13	31	37
	Kilkenny	49	23	44·1	25·9	34·7	− 7·8	6	56	3	0·21	−0·29	*	*
	Waterford	46	24	43·6	28·4	35·8	− 8·5	4	47	4	0·42	−0·27	*	*
	Roche's Point	45	29	43·6	31·4	37·3	− 7·5	4	37	2	0·47	−0·37	*	*
	Valencia	49	29	46·4	31·1	38·5	− 7·3	12	39	1	0·44	−0·51	46	55
	Killarney	46	19	43·7	26·8	35·0	− 9·6	5	53	1	0·39	?	*	*
	Foynes	46	25	44·4	27·0	35·4	− 8·2	7	52	2	0·30	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	47	32	42·6	33·3	37·8	− 8·7	2	30	5	0·38	−0·16	*	*
	Jersey (Noirmont)	48	28	41·0	30·9	35·8	− 8·1	0	43	4	0·34	−0·18	45	54

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℘ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, NORTH BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. IV. No. 12.] *Second Series.* WEEK ENDING MONDAY, 28TH MARCH, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 48.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	55	29	45·8	35·5	40·5	0 (average).	11	0	24	− 6	120	+ 31	378	− 1
	1. SCOTLAND, EAST	60	22	48·0	34·5	41·0	1 above.	17	− 1	29	+ 1	158	+ 27	442	+ 15
	2. ENGLAND, N.E.	56	28	48·9	36·4	42·4	1 above.	26	+ 8	16	− 8	131	− 7	454	+ 70
	3. ENGLAND, EAST	58	26	51·9	36·4	43·9	2 above.	37	+11	16	− 9	104	− 75	555	+155
	4. MIDLAND COUNTIES	55	22	50·6	37·3	43·8	1 above.	32	+ 4	13	−11	139	− 54	528	+136
	5. ENGLAND, SOUTH	58	27	52·5	38·2	45·2	1 above.	38	+ 8	11	− 8	142	− 67	435	+130
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	55	27	47·6	37·5	42·4	0 (average).	22	+ 4	13	− 6	134	− 13	336	+ 24
	7. ENGLAND, N.W.	51	28	47·5	38·2	42·7	1 below.	21	0	11	− 7	113	− 36	404	+ 98
	8. ENGLAND, S.W.	61	30	50·7	39·6	45·0	0 (average).	31	+ 3	7	− 6	168	− 88	326	+ 41
	9. IRELAND NORTH	57	29	49·3	37·5	43·2	0 (average).	27	+ 4	13	− 5	203	+ 6	286	+ 12
	10. IRELAND, SOUTH	57	33	50·8	39·0	44·7	0 (average).	32	+ 1	8	− 5	261	− 24	246	+ 61
	— CHANNEL ISLANDS	53	34	50·2	41·9	45·9	0 (average).	28	− 3	0	− 4	185	−111	162	+ 78

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 48.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			tOths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	11	5 more.	55	− 4	11·3	+ 2·2	20	23	174	+16	22	+ 1
	1. SCOTLAND, EAST	5	5	0 (average).	39	− 4	5·1	− 2·1	35	41	255	+31	32	+ 3
	2. ENGLAND, N.E.	6	6	2 below.	36	− 6	3·5	− 1·9	36	41	250	+83	31	+10
	3. ENGLAND, EAST	6	8	4 more.	31	−12	3·3	− 1·8	35	40	280	+69	34	+ 8
	4. MIDLAND COUNTIES	5	8	4 more.	32	− 9	3·9	− 2·2	31	35	229	+36	28	+ 4
	5. ENGLAND, SOUTH	5	6	2 more.	31	−10	3·9	− 2·5	35	41	228	+29	27	+ 3
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	6	10	4 more.	44	− 8	9·5	− 0·6	27	31	199	+35	25	+ 4
	7. ENGLAND, N.W.	5	12	7 more.	35	−11	5·7	− 2·2	28	32	230	+65	28	+ 7
	8. ENGLAND, S.W.	5	9	2 more.	36	−11	5·4	− 5·3	44	51	289	+65	33	+ 6
	9. IRELAND, NORTH	5	9	3 more.	43	−12	6·9	− 1·4	32	37	222	+36	27	+ 3
	10. IRELAND, SOUTH	5	8	1 more.	38	−14	7·5	− 2·7	42	49	271	+56	33	+ 6
	— CHANNEL ISLANDS	5	5	0 (average).	39	−13	4·4	− 3·9	49	57	352	+70	43	+ 9

General Remarks.

Weather has been in an unsettled, changeable state generally. Falls of rain or hail were frequent, but several bright, fair intervals were experienced, especially towards the close of the period.

Temperature has been about equal to the mean for the season in nearly all the "Grazing Districts", but in all the "Wheat-producing Districts" it has been 1° above. The highest of the maxima, which were recorded either on the 27th or 28th, varied from 53° in the "Channel Islands" to 60° in "Scotland, E." and 61° "England, S.W." The lowest of the minima were generally registered at the commencement of the period, when the thermometer fell to 22° in the "Midland Counties" and "Scotland, E.", and to between 26° and 34° elsewhere.

Rainfall has been more than the mean in nearly all districts.

Bright sunshine shows a decrease in Scotland, but in Ireland and England it has not differed much from that recorded last week. The percentage of the possible amount of duration ranged from 23 in "Scotland, N." and 31 in "Scotland, W.", to 51 in "England, S.W." and 57 in the "Channel Islands".

Depressions observed.—During nearly the whole of this period barometric pressure over our Islands and their neighbourhood has been in a changeable condition. Some rather large depressions have moved eastwards or north-eastwards over our northern coasts, while one or two subsidiary disturbances have travelled across England and the North Sea. Moderate to strong South-Westerly to Westerly or North-Westerly winds have generally prevailed over our Islands, but at times they have increased to the force of a gale, that caused by the deep subsidiary depression which lay over England on the 23rd being rather severe over our southern and south-eastern districts.

A 50930. 350.—3/87. Wt. 44. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

Weather

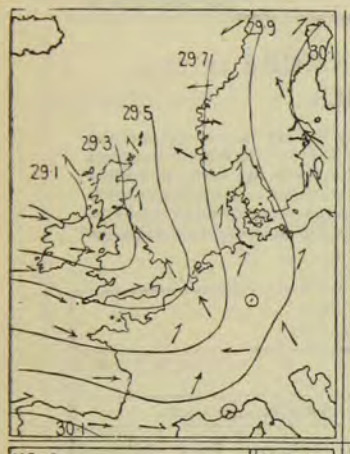
During the 24 hours succeeding

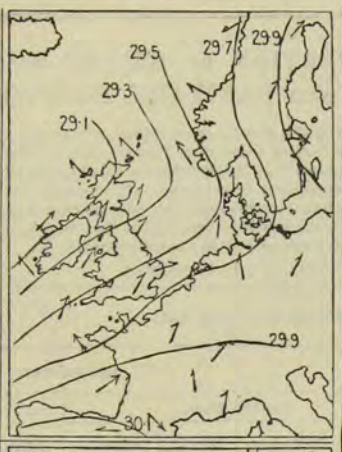
8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, March 22.

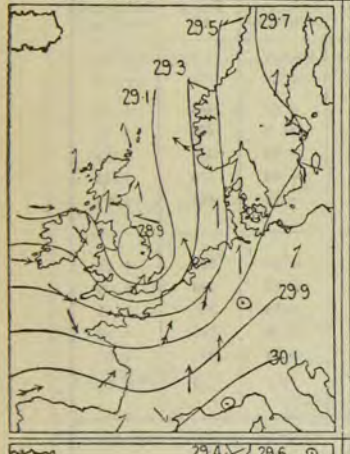
Weather fair in Scandinavia and the south of our Islands, but cloudy elsewhere, with rain in many places and snow over the south of Scotland and north of England. Heavy rain falling in west later, and showers at most of our southern stations.

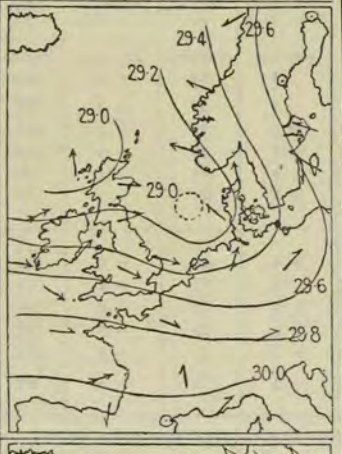
Temperature fallen a little in the north, but risen several degrees elsewhere; readings over our Islands ranging from 48° at Jersey to 30° at Nairn and Ardrossan.

Wind strong from West on our western and southern coasts, and also in the west of France, but South-Easterly elsewhere. Subsequently backing to South-West or South in the west and south.

Sea rough or rather so on our western, southern, and extreme northern coasts.

Barometer falling at all but our south-western stations. Pressure high (30·1 ins. and upwards) over Spain and the Gulf of Bothnia, but centre of "V-shaped" depression lying off the north-west of our Islands, and trough of subsidiary disturbances extending south-eastwards over England. Fresh fall commencing in south-west later.





Wednesday, March 23.

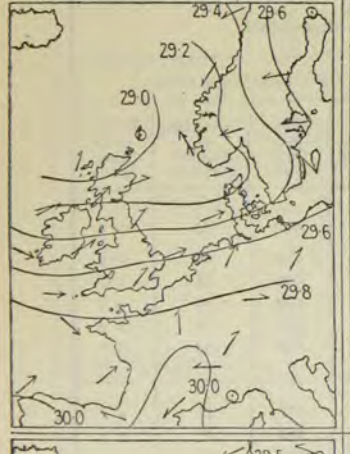
Weather rainy in the north and east of England, and showery at many of our western stations, but fair or fine elsewhere. Decided improvement taking place in east later. Brilliant aurora seen at night at Aberdeen.

Temperature risen at all but one or two of our western stations; readings over our Islands ranging from 48° in London to 37° at Nairn.

Wind strong from West-North-West on our western coasts and strong to gale from West or South-West in the south and south-east of England, but South-Easterly or Southerly over the north of our Islands and the countries to the eastward of the North Sea. Gale in south moderating later.

Sea high in the Channel and rough on our west, south, and south-east coasts generally.

Barometer falling at all but our western stations. Pressure highest (30·2 ins. and upwards) in Portugal, but relatively high in Sweden. Depression of previous day now lying off the north-west of Scotland, but centre of deep subsidiary disturbance shown over the north of England. Latter system subsequently moving away to North Sea, and barometer rising over our Islands generally.



Thursday, March 24.

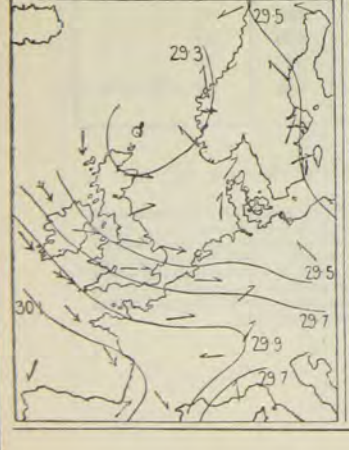
Weather fine in Germany the Netherlands, and the north and east of our Islands, but cloudy elsewhere, with showers in the west. Showers falling generally later.

Temperature fallen a little in France, but risen elsewhere; readings over our Islands ranging from 47° at Scilly to 39° at Wick and Donaghadee and 37° at Parsonstown.

Wind Easterly in Scandinavia, but South-Westerly or Westerly elsewhere; strong in force at many of our western and southern stations. Subsequently veering to the North-Westward on our west coasts, and increasing to moderate or fresh gale.

Sea rough or rather so on our western and southern coasts, but moderate to smooth elsewhere.

Barometer rising at all but the Scandinavian stations. Pressure highest 30·1 ins. and upwards over Portugal, and lowest 29·0 ins. and less in a large area lying to the northward of our Islands. Shallow subsidiary depressions subsequently travelling across the Kingdom, and barometer falling over the east and south of England.



Friday, March 25.

Weather fine in France and the north of our Islands, but rainy in Germany and the south of Denmark, and showery in most other parts of Western Europe. Showers continuing all day.

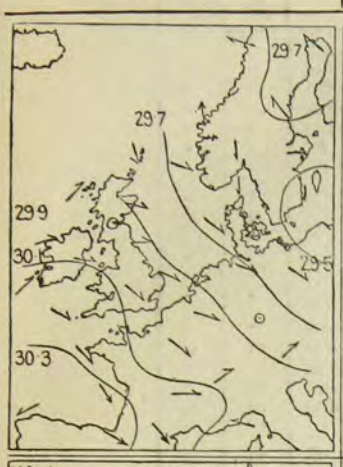
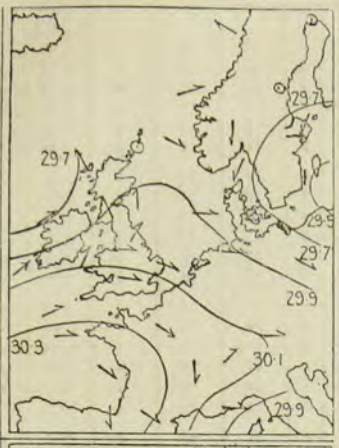
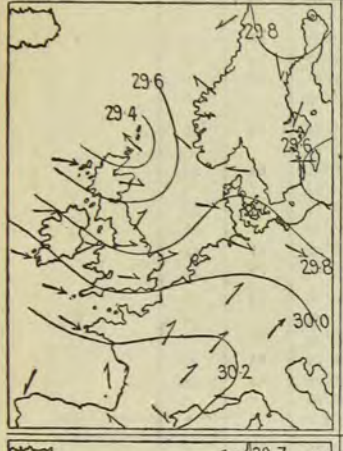
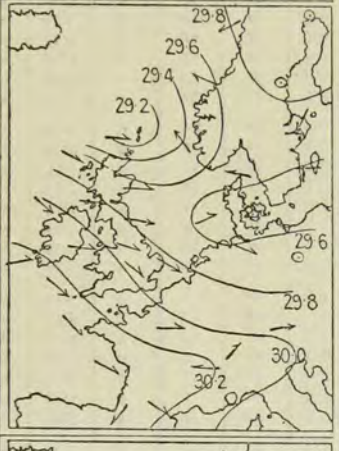
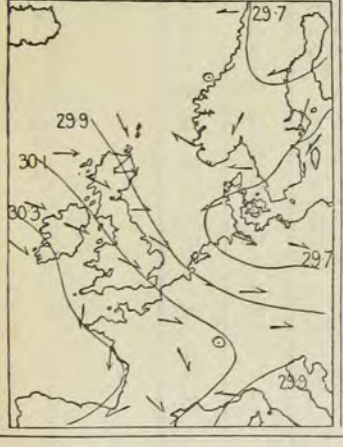
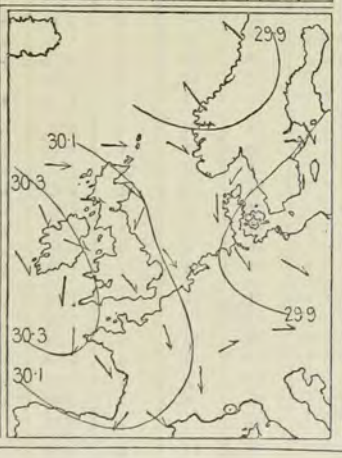
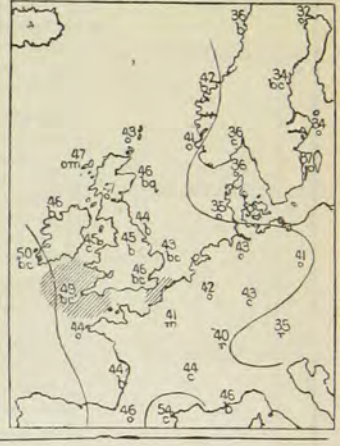
Temperature fallen a little in Germany and France, but risen elsewhere; readings over our Islands ranging from 46° at Bellmullet, Valencia, Scilly, and Jersey, to 38° at Wick.

Wind strong to a gale from North-West on the west coast of our Islands and France, but moderate from West in the east, and light from South or South-East in Scandinavia. Subsequently veering to North-West or North over the whole of the United Kingdom.

Sea rough on our western and southern coasts.

Barometer rising at all but the German and Swedish stations. Pressure highest in the north of Spain, with a large area of low readings off the west of Norway, and some small depressions over the North Sea and Germany. Depressions subsequently moving away eastwards, and barometer continuing to rise generally.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, March 26.** *Weather* fine over Great Britain and France, but cloudy elsewhere, with rain in Ireland and snow at some of the Scandinavian stations. Rain extending later to all the more western and northern parts of our Islands. *Temperature* changed little and irregularly; readings over the United Kingdom ranging from 49° at Valencia to 40° at Dungeness and 39° at Stornoway and Spurn Head. *Wind* moderate South-Westerly on our extreme western coasts, but Westerly or North-Westerly elsewhere. Subsequently backing to South-West at all our western stations and to South in Scotland. *Sea* rather rough at Valencia and also in the Channel, but moderate to smooth elsewhere. *Barometer* falling a little on our extreme western coasts, but rising elsewhere. Anticyclone lying over the Bay of Biscay and north of Spain, and small depression over the Baltic. New disturbance subsequently appearing off the west of Scotland, and barometer falling at all our western and northern stations.	
		**Sunday, March 27.** *Weather* rainy in the south-east of England as well as on the shores of the Baltic, and showery at several of our western and northern stations, but fair or fine elsewhere. Improvement taking place over England later. *Temperature* risen a little over Great Britain, but changed irregularly elsewhere; readings over our Islands ranging from 49° at Scilly and York to 41° in the Shetlands. Subsequently rising to 56° at Dungeness and Cambridge and to 58° in London. *Wind* South-Easterly in the Shetlands and west of Norway, but Westerly over the greater part of our Islands and North-Easterly in Sweden and Spain; strong in force on our north and north-west coasts. *Sea* rough, or rather so, on all but our east coast. *Barometer* falling in the north and east of our Islands, and also in France, but rising elsewhere. Anticyclone lying over the south-west of France and the north of Spain, with centre of rather deep depression off the north of Scotland. Depression subsequently moving slowly eastwards and dispersing.	
		**Monday, March 28.** *Weather* fair generally, but dull at our north-western and many of the continental stations. Showers falling later at some of our eastern and south-eastern stations. *Temperature* fallen a little in our Islands and the west and north of France, but risen elsewhere; readings over the United Kingdom ranging from 50° at Valencia to 43° at Sumburgh Head and 42° at Spurn Head. *Wind* North-Easterly in Scandinavia and Spain, but Westerly or North-Westerly elsewhere. Strong in force at many of our eastern stations. Wind moderating later. *Sea* rather rough at the mouth of the Channel, but moderate to smooth elsewhere. *Barometer* falling a little over Germany and the east of France, but rising elsewhere. Anticyclone now lying over the Bay of Biscay and our extreme south-west coasts, with relatively low pressures over Norway and the Baltic. Rise taking place generally later, and anticyclone in west extending eastwards.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⟹ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 45 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	49	33	46·3	36·3	41·2	+ 1·4	12	22	6	0·68	+0·08	*	*
	Stornoway	50	34	46·6	36·1	41·2	+ 0·2	13	23	6	1·49	+0·69	20	23
	Wick	53	32	48·3	36·3	42·1	+ 2·2	25	16	4	0·18	−0·23	*	*
	Lairg S	47	29	43·3	34·1	38·6	− 1·1	4	28	7	0·47	−0·14	*	*
	Glencarron S	48	31	44·6	35·0	39·7	− 0·6	7	26	7	2·27	?	*	*
	Fort Augustus S	55	32	45·9	35·0	40·3	− 0·5	11	26	6	1·46	?	*	*
1. SCOTLAND, E.	Nairn	52	26	48·9	33·6	41·0	+ 0·1	19	32	3	0·20	−0·18	*	*
	Aberdeen	54	32	49·1	36·3	42·5	+ 2·6	27	16	5	0·43	−0·08	36	41
	Braemar S	49	22	43·5	32·6	37·9	+ 0·6	4	33	6	0·23	−0·37	*	*
	Ochtertyre S	60	30	49·9	34·9	42·2	+ 1·3	31	20	5	0·80	+0·22	*	*
	Leith	59	28	49·9	36·1	42·8	+ 0·5	30	17	5	0·43	+0·11	*	*
	Marchmont S	55	25	46·5	33·3	39·7	− 0·5	13	32	4	0·68	+0·16	*	*
2. ENGLAND, N.E.	Alnwick Castle	52	33	46·4	37·7	41·9	+ 1·0	12	17	5	0·60	+0·10	*	*
	Durham	56	28	49·7	35·5	42·4	+ 1·6	30	18	7	0·48	−0·01	38	44
	Shields	55	30	49·9	36·1	42·8	+ 1·4	30	17	3	0·35	−0·03	*	*
	Scarborough M	54	30	48·8	37·3	42·8	+ 1·4	25	13	6	0·49	+0·08	*	*
	York	56	30	51·4	35·7	43·3	+ 1·0	36	18	6	0·96	+0·58	33	38
	Spurn Head	50	33	46·9	36·0	41·3	− 0·6	14	23	6	0·67	?	*	*
3. ENGLAND, E.	Hillington M	56	26	51·7	35·2	43·2	+ 1·9	37	19	5	0·85	+0·50	30	34
	Yarmouth	54	31	49·3	36·3	42·6	+ 0·3	28	16	6	0·68	+0·28	*	*
	Geldeston	56	28	51·9	35·8	43·6	+ 0·7	37	17	6	0·88	+0·53	36	42
	Cambridge	57	28	54·0	35·9	44·7	+ 1·8	45	17	6	0·57	+0·22	38	44
	Rothamsted	58	35	52·3	38·3	45·1	+ 2·8	37	10	6	0·81	+0·41	*	*
	Ingatestone	55	30	52·1	36·9	44·3	+ 1·4	38	14	7	0·79	+0·49	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	55	31	50·7	36·9	43·6	+ 1·8	33	14	6	0·60	+0·25	36	41
	Loughborough	55	22	51·4	36·6	43·8	+ 1·5	35	15	5	0·49	+0·14	*	*
	Leicester	54	31	51·5	38·0	44·6	+ 2·3	35	11	6	0·86	+0·51	24	28
	Cheadle M	50	29	47·9	36·5	42·0	+ 0·7	17	15	6	1·11	+0·60	*	*
	Churchstoke M	53	31	49·1	36·8	42·8	+ 0·6	27	15	5	1·12	+0·72	30	34
	Hereford M	55	32	52·1	39·0	45·4	+ 2·1	36	8	4	0·49	+0·10	*	*
	Cirencester	54	30	50·9	36·4	43·4	+ 0·6	33	16	5	0·51	+0·02	34	40
	Oxford	55	31	51·3	38·3	44·6	+ 1·3	34	10	6	0·87	+0·51	29	34
5. ENGLAND, S.	London†	58	30	53·3	38·9	45·9	+ 1·6	40	9	5	0·39	+0·04	30	35
	Strathfield Turgiss M	57	30	54·1	36·1	44·8	+ 1·2	44	17	5	0·57	+0·22	*	*
	Dungeness	56	28	52·0	37·1	44·3	− 0·6	37	14	5	0·63	+0·22	*	*
	Hastings (St. Leonard's)	56	36	52·2	39·5	45·7	+ 2·0	36	7	6	0·57	+0·14	38	44
	Southampton	57	36	54·2	39·0	46·4	+ 2·0	43	8	3	0·68	+0·21	38	44
	Hurst Castle	55	34	51·1	39·6	45·2	+ 0·3	32	7	5	0·58	+0·15	*	*
	Stowell M	54	27	50·5	37·4	43·8	+ 0·7	32	13	4	0·68	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	55	32	47·8	38·0	42·8	+ 1·4	22	11	6	2·00	+0·65	*	*
	Glasgow	52	30	46·5	37·0	41·6	− 0·2	13	20	5	1·01	+0·47	22	25
	Ardrossan	50	29	47·0	36·7	41·7	− 0·2	14	21	5	0·73	+0·19	*	*
	Glenlee S	52	27	48·3	36·9	42·4	+ 0·6	24	14	7	1·23	?	*	*
	Douglas (Isle of Man)	52	34	48·4	39·0	43·6	+ 0·2	24	8	5	0·88	+0·28	32	37
7. ENGLAND, N.W.	Newton Reigny (Penrith)	50	28	47·1	35·7	41·2	− 0·1	14	24	6	0·81	+0·36	29	33
	Barrow-in-Furness	49	31	47·1	38·4	42·6	− 1·3	19	10	5	1·38	+0·88	*	*
	Stonyhurst	49	31	46·4	37·1	41·6	− 0·7	12	19	3	2·11	+1·42	34	39
	Blackpool M	48	30	46·6	38·3	42·3	− 1·6	18	10	4	1·25	+0·79	33	38
	Manchester	50	31	47·8	37·6	42·6	+ 0·3	23	12	6	1·37	+0·85	*	*
	Liverpool Obsy (Bidston)	49	32	47·7	38·4	42·9	− 1·0	21	10	5	0·74	+0·37	*	*
	Llandudno M	51	33	47·9	39·8	43·7	− 1·1	21	6	3	0·75	+0·32	14	16
	Holyhead	51	32	49·0	40·0	44·4	− 0·7	25	6	4	1·03	+0·56	*	*
8. ENGLAND, S.W.	Llandovery	55	33	51·9	38·1	44·8	+ 1·5	36	11	5	1·58	+0·89	*	*
	Pembroke	48	30	47·1	40·3	43·6	− 1·8	18	5	4	0·74	+0·23	43	50
	Arlington (N. Devon)	52	31	49·1	37·7	43·2	− 0·6	26	12	4	1·06	+0·35	*	*
	Cullompton M	56	33	52·0	39·9	45·8	+ 1·2	35	6	4	0·84	+0·27	41	48
	Falmouth	52	40	50·4	41·6	45·9	0·0	29	1	5	0·78	+0·03	47	55
	Plymouth	56	32	52·4	40·6	46·3	+ 0·4	36	4	5	0·59	+0·02	45	52
	Prawle Point	61	30	52·3	38·7	45·2	+ 0·2	36	9	5	0·33	?	*	*
9. IRELAND, N.	Malin Head	48	32	46·3	37·6	41·8	− 0·8	12	17	5	1·17	?	*	*
	Londonderry	57	34	52·3	37·5	44·7	+ 1·9	38	13	6	1·07	+0·46	*	*
	Mullaghmore	52	29	48·7	38·3	43·3	− 1·1	25	10	6	0·92	+0·32	*	*
	Belmullet	51	33	48·3	40·0	44·0	− 1·9	22	6	6	1·09	?	*	*
	Markree Castle	53	32	49·2	36·7	42·8	− 0·7	28	15	6	1·08	+0·53	32	37
	Brookeborough	53	33	49·2	37·1	43·0	+ 0·8	28	14	3	0·68	?	*	*
	Armagh	54	34	50·0	36·6	43·1	− 0·3	30	15	6	0·48	0·00	32	37
	Donaghadee	55	35	49·6	38·3	43·8	− 0·6	28	10	5	0·84	+0·39	*	*
	Edgeworthstown	53	32	49·7	35·7	42·5	+ 0·7	30	18	5	0·64	+0·02	*	*
10. IRELAND, S.	Dublin	56	35	50·8	38·8	44·6	0·0	32	9	6	0·52	−0·06	47	54
	Parsonstown	55	33	50·1	36·3	43·0	− 0·4	31	16	6	0·68	+0·16	38	44
	Kilkenny	57	34	52·7	37·3	44·8	+ 1·3	39	13	5	0·82	+0·31	*	*
	Waterford	57	35	51·6	38·2	44·7	− 0·5	35	11	4	0·86	+0·18	*	*
	Roche's Point	54	38	49·3	40·9	45·0	− 0·5	26	3	4	1·11	+0·28	*	*
	Valencia	55	39	51·4	41·9	46·5	− 0·1	32	0	6	0·98	+0·03	43	50
	Killarney	55	37	50·7	39·7	45·0	− 0·8	31	6	5	0·69	?	*	*
	Foynes	52	35	49·4	39·1	44·1	− 0·5	27	8	6	0·82	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	53	34	50·7	42·3	46·4	− 1·0	31	0	4	0·65	+0·10	*	*
	Jersey (Noirmont)	50	34	49·7	41·4	45·4	+ 0·3	26	2	5	0·82	−0·18	49	57

Stations marked M are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 13.] *Second Series.* WEEK ENDING MONDAY, 4TH APRIL, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 52.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	55	26	47·4	37·1	41·9	1 above.	15	− 1	18	− 9	135	+ 39	396	− 19
	1. SCOTLAND, EAST	61	27	51·3	37·9	44·3	3 above.	33	+12	11	−14	191	+ 49	453	− 9
	2. ENGLAND, N.E.	60	31	50·7	37·8	44·0	1 above.	32	+11	12	− 8	163	+ 16	466	+ 51
	3. ENGLAND, EAST	58	31	51·2	35·2	42·9	1 below.	35	+ 5	19	− 2	139	− 58	574	+139
	4. MIDLAND COUNTIES	64	28	52·0	35·2	43·2	1 below.	37	+ 6	19	− 2	176	− 39	547	+121
	5. ENGLAND, SOUTH	62	31	52·0	35·7	43·5	2 below.	37	+ 3	18	+ 3	179	− 54	453	+124
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	59	28	49·9	38·1	43·7	1 above.	28	+ 5	11	− 5	162	+ 2	347	+ 8
	7. ENGLAND, N.W.	54	31	48·3	38·2	43·0	2 below.	23	− 2	11	− 4	136	− 28	415	+ 83
	8. ENGLAND, S.W.	62	27	52·6	36·3	44·0	2 below.	38	+ 6	16	+ 5	206	− 71	342	+138
	9. IRELAND, NORTH	64	30	51·9	39·7	45·5	1 above.	34	+ 6	6	− 9	237	+ 23	292	+ 7
	10. IRELAND, SOUTH	62	30	52·9	38·5	45·3	0 (average).	38	+ 3	10	− 2	299	− 12	256	+ 51
	— CHANNEL ISLANDS	59	38	51·1	41·8	46·2	1 below.	30	− 5	1	− 2	215	−108	163	+ 74

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 52.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	8	2 more.	60	− 3	12·1	+ 2·5	13	14	187	− 1	21	− 1
	1. SCOTLAND, EAST	4	3	2 less.	43	− 3	5·4	− 2·2	25	27	280	+31	32	+ 3
	2. ENGLAND, N.E.	2	3	2 less.	38	− 7	3·8	− 2·1	25	28	275	+83	31	+ 9
	3. ENGLAND, EAST	2	4	0 (average).	33	−13	3·7	− 1·7	30	33	310	+59	34	+ 6
	4. MIDLAND COUNTIES	3	3	2 less.	35	− 9	4·2	− 2·4	18	20	247	+24	27	+ 2
	5. ENGLAND, SOUTH	3	3	1 less.	34	− 9	4·2	− 2·7	33	37	261	+26	28	+ 2
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	3	3	3 less.	47	− 8	9·8	− 0·9	32	36	231	+37	26	+ 4
	7. ENGLAND, N.W.	3	3	2 less.	38	−10	6·0	− 2·4	28	31	258	+67	29	+ 7
	8. ENGLAND, S.W.	2	1	5 less.	38	−13	5·5	− 5·8	44	48	333	+78	36	+ 8
	9. IRELAND, NORTH	4	4	1 less.	47	−12	7·3	− 1·5	25	28	247	+30	27	+ 2
	10. IRELAND, SOUTH	2	2	5 less.	40	−15	7·7	− 3·1	38	42	309	+60	34	+ 6
	— CHANNEL ISLANDS	3	1	4 less.	42	−15	4·5	− 4·3	55	62	407	+89	43	+ 9

General Remarks.

Weather has remained in a changeable unsettled condition. At the commencement of the week, fair, dry weather was experienced generally, but on the 31st March and 1st April squalls and showers of hail or sleet extended over the Kingdom from the northward. At the close of the period some improvement was observed, but the sky remained cloudy, with rain over the more northern districts.

Temperature has been a little above the mean in Scotland, "England, N.E.", and "Ireland, N.", and about equal to the normal in "Ireland, S.", but below it elsewhere. The highest of the maxima which were recorded on irregular dates, varied from 64° in the "Midland Counties" and "Ireland, N.", to 55° in "Scotland, N." and 54° in "England, "N.W." The lowest of the minima which were recorded in most places either on the morning of the 1st or 2nd, ranged from 26° in "Scotland, N." and 27° in "Scotland, E." and "England, S.W.", to 31° in "England, N.E.", "England, E.", "England, S.", and "England, N.W.", and to 38° in the "Channel Islands."

Rainfall has been less than the mean in all districts excepting "Scotland, N." where it has been slightly in excess of the normal, and "England, E.", where the average has just been reached.

Bright sunshine has been upon the whole much less prevalent than it was last week, the percentages of the possible amount of duration ranging from 14 in "Scotland, N." and 20 in the "Midland Counties", to 48 in "England, S.W." and 62 in the "Channel Islands".

Depressions observed.—At the commencement of the week a large anticyclone covered the greater part of the United Kingdom, but on the night of the 30th March this moved away in a south-westerly direction, and in the course of the ensuing 24 hours the centre of a deep depression advanced in a south-easterly direction to our northern coasts, and passed southwards over the North Sea to the Netherlands and the east of France. As this disturbance moved along the wind increased to a severe gale from the North-Westward in Scotland and to a fresh or strong gale from North over England, with cold squally weather. Towards the close of the week, however, when some large depressions appeared over Scandinavia, and to the northward of our Islands, the wind backed to West generally, and blew with moderate force in most places.

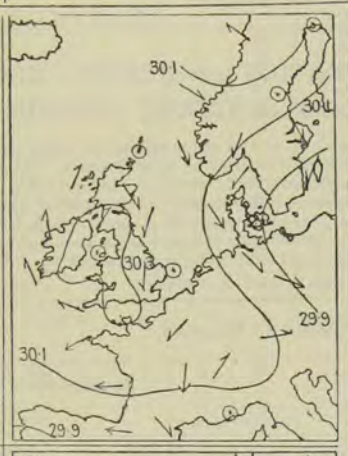
A 51016. 350.—4/87. Wt. 36. E. & S.

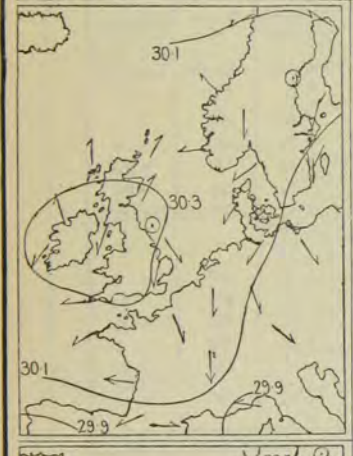
II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

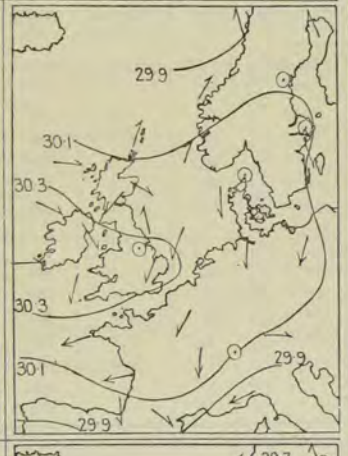
Synoptic Charts.

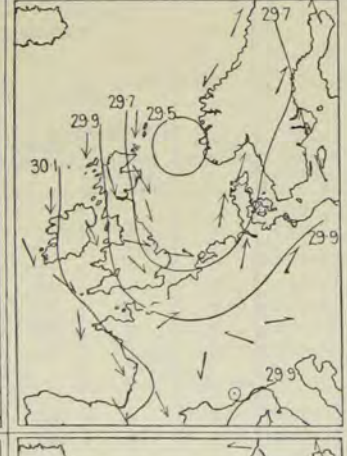
PRESSURE AND WIND.

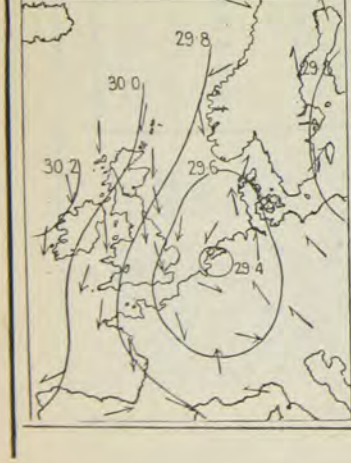
8 a.m. | **6 p.m.**

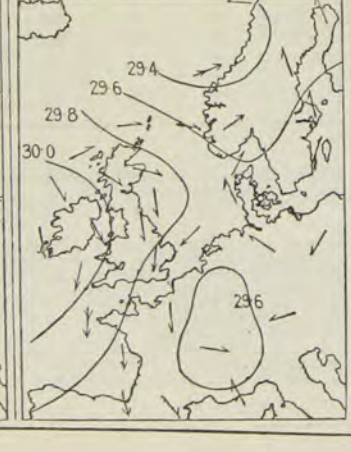












Weather

During the 24 hours succeeding

8 a.m. on the dates given.

Tuesday, March 29.

Weather fair generally, but dull and hazy at several of our more central stations.

Temperature risen a little in the extreme north, but fallen elsewhere; readings over our Islands ranging from 50° at Valencia, Scilly, and Prawle Point to 39° at Barrow-in-Furness.

Wind moderate North-Westerly over Scotland and the eastern shores of the North Sea, but North-Easterly in the south of our Islands as well as at most of the French stations. Southerly breezes setting in later on our extreme western coasts.

Sea rather rough at Valencia, but moderate to smooth elsewhere.

Barometer falling a little in Sweden and the extreme west of our Islands, but rising elsewhere. Anticyclone lying over Ireland and England, with shallow depressions over Scandinavia, the Baltic, the Gulf of Genoa, and Spain. Slight fall taking place later at our western and the French stations.

Wednesday, March 30.

Weather fine generally, but misty or foggy at several of our central stations. Rain setting in later over the extreme north of Scotland.

Temperature changed rather irregularly, but fallen in most places; readings over our Islands ranging from 48° at Prawle Point to 40° at Parsonstown.

Wind South-Westerly in the extreme north, but Northerly or North-Easterly elsewhere; light or moderate in force generally.

Sea slight or smooth in most places.

Barometer rising at all but our extreme northern stations. Anticyclone lying over our Islands, with shallow depressions over Spain and the Gulf of Genoa. Brisk fall taking place later in extreme north, and depression appearing off the north-west of Norway.

Thursday, March 31.

Weather fine in France and the north of Sweden, but cloudy elsewhere, with rain at several of our northern stations. Rain extending southwards later, and hail or sleet showers falling in Scotland.

Temperature risen a little over Ireland and the north of England, but fallen elsewhere; readings over our Islands ranging from 49° at Valencia to 37° at Loughborough,

Wind North-Westerly over Germany and the east of France, and Easterly over the Bay of Biscay, but Westerly or South-Westerly elsewhere; moderate or fresh in force generally. Subsequently veering to North-West or North on our northern coasts, and increasing to strong gale.

Sea rather rough at Stornoway, but moderate to smooth elsewhere.

Barometer falling at all but the French stations. Pressure highest 30·3 ins. and upwards in an anticyclone lying off our south-west coasts, with centre of deep depression off the north of Scotland. Depressions subsequently moving south-eastwards, and barometer rising again in extreme north.

Friday, April 1.

Weather fair in Ireland, Scotland, and Norway, but cloudy elsewhere, with snow or sleet in many parts of England. Improvement taking place over England later.

Temperature fallen in our Islands, but risen at many of the Continental stations; readings over the United Kingdom ranging from 49° at Scilly to 37° at Sumburgh Head.

Wind light or moderate from the Southward over Sweden, Denmark, and Germany, but strong from the Northward over our Islands and the north and west of France, with gales in many parts of England. Subsequently backing to West in the north of Scotland.

Sea rough or rather so on all the English coasts, but moderate to smooth generally elsewhere.

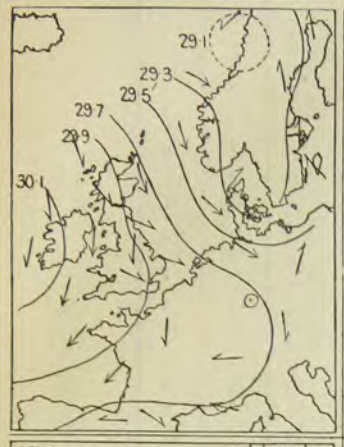
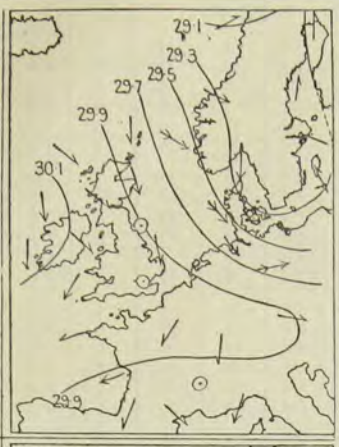
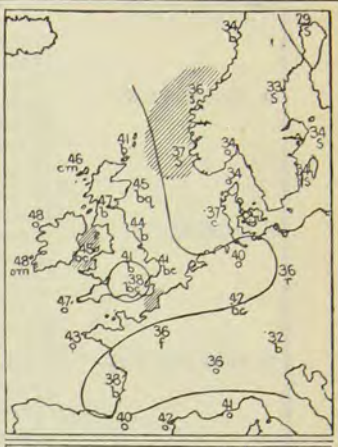
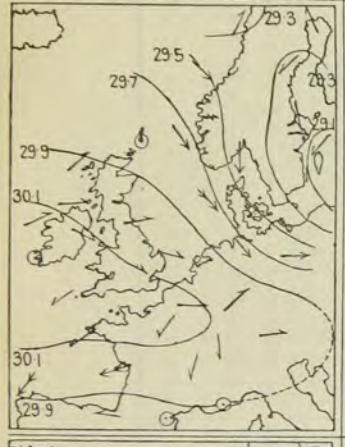
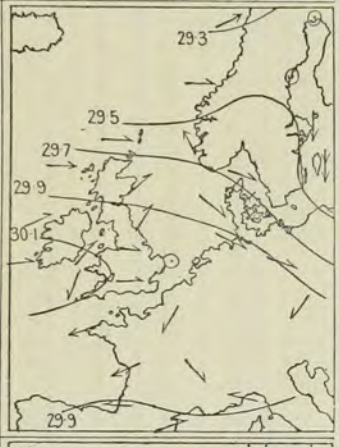
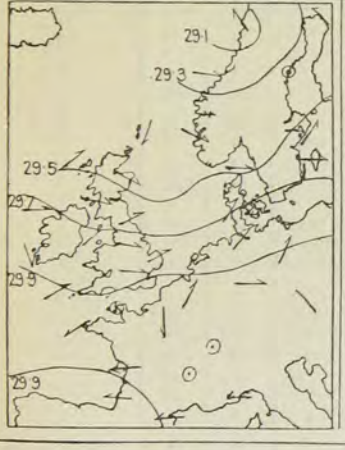
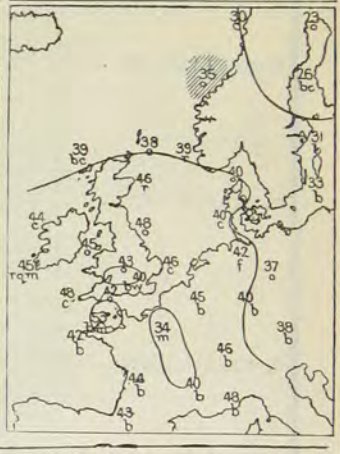
Barometer falling at our southern and most of the Continental stations, but rising in the north. Pressure highest off the west of Ireland, and deep depression noticed off our northern coasts in previous day now lying over Holland. Depression subsequently continuing to move southwards, but new fall of barometer setting in on our northern coasts.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather. During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, April 2.** *Weather* fair in almost all places, but rather showery in the north of Scotland; little change during the day. *Temperature* fallen over France and central England, risen elsewhere, and increasing to between 50° and 55° over the greater part of the Kingdom during the afternoon. *Wind* Northerly and North-Westerly; moderate generally, but strong at some of the northern stations, especially during the early morning. *Sea* rather rough at Holyhead and on the coast of Norway, moderate or slight elsewhere. *Barometer* highest (30·15 ins.) in extreme west, lowest in north-east. A new complex depression over Scandinavia, and moving in a south-easterly direction.	
		**Sunday, April 3.** *Weather* fine generally, but hazy in places, and dull in many parts of Ireland and Scotland. Rain setting in on our extreme north and north-west coasts later. *Temperature* slightly higher than of late, and increasing during day to between 55° and 59° over the inland parts of England and to between 60° and 66° in the south-west of France. *Wind* North-Easterly over France and the Bay of Biscay, calm in the Channel, and backing to West over the northern half of England, but remaining moderate or light in force. Northerly gales on coast of Portugal. *Sea* smooth, or nearly so, on our coasts. Rough off the west of Norway and at Corunna. *Barometer* still highest (30·2 ins.) in west; a ridge extending thence in an easterly direction across Wales and south of England. Fall taking place generally, most in north, and an irregular series of disturbances advancing towards our area from the north-west.	
		**Monday, April 4.** *Weather* very fine over England, and warm; rainy and cold in Scotland and Ireland. The less settled conditions spreading south-eastwards over England later, but not reaching London till night. *Temperature* rising to between 55° and 59° over England in afternoon, and to between 60° and 68° over France; much lower over Ireland and England, where the night became frosty. *Wind* Westerly to North-Westerly. Force of former moderate; the later strong, and equally in places. The North-Westerly wind lulling subsequently, and spreading all over England. *Sea* very little disturbed. *Barometer* falling generally. New but not deep depression in north of Norway; subsidiary systems over North Sea and British Isles. All moving south-eastwards.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➤ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 49 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	50	33	45·0	36·4	40·2	− 0·5	8	18	5	0·66	+0·10	*	*
	Stornoway	51	34	48·4	38·1	43·0	+ 1·2	23	11	4	0·91	+0·21	13	14
	Wick	53	37	49·0	39·3	43·9	+ 3·1	25	8	5	0·37	−0·01	*	*
	Lairg Ⓢ	?47	26	?44·7	31·4	?39·3	?− 1·4	? 8	?27	5	0·61	+0·05	*	*
	Glencarron Ⓢ	52	32	46·1	37·3	41·5	0·0	11	18	6	1·51	?	*	*
	Fort Augustus Ⓢ	55	33	51·0	37·0	43·7	+ 1·6	33	14	5	0·54	?	*	*
1. SCOTLAND, E.	Nairn	56	34	50·1	38·6	44·1	+ 2·0	29	10	5	0·56	+0·21	*	*
	Aberdeen	56	34	52·1	39·6	45·6	+ 4·5	35	7	4	0·27	−0·24	25	27
	Braemar Ⓢ	54	29	48·0	34·0	40·7	+ 1·0	17	39	5	0·44	−0·11	*	*
	Ochtertyre Ⓢ	60	27	54·1	37·0	45·1	+ 2·9	43	14	3	0·04	−0·52	*	*
	Leith	61	36	53·4	40·4	46·6	+ 3·0	39	4	1	0·37	+0·03	*	*
	Marchmont Ⓢ	54	35	49·9	37·7	43·5	+ 2·0	29	12	3	0·23	−0·31	*	*
2. ENGLAND, N.E.	Alnwick Castle	53	31	49·7	39·0	44·1	+ 1·8	27	8	1	0·27	−0·24	*	*
	Durham	59	32	53·1	36·2	44·2	+ 2·1	40	16	3	0·30	−0·20	27	30
	Shields	57	35	51·1	39·0	44·8	+ 2·0	32	8	1	0·20	−0·20	*	*
	Scarborough Ⓜ	55	33	48·6	37·7	42·9	+ 0·4	24	12	3	0·25	−0·18	*	*
	York	60	32	52·6	37·3	44·6	+ 1·0	38	13	3	0·27	−0·13	23	26
	Spurn Head	54	34	49·0	37·7	43·1	− 0·2	26	12	3	0·34	?	*	*
3. ENGLAND, E.	Hillington Ⓜ	58	32	51·5	34·4	42·5	− 0·1	35	21	3	0·44	+0·06	31	34
	Yarmouth	53	33	48·4	36·9	42·4	− 1·2	24	14	1	0·29	−0·12	*	*
	Geldeston	56	32	51·4	35·3	43·0	− 1·3	35	19	2	0·33	−0·02	39	43
	Cambridge	58	31	52·9	34·4	43·2	− 1·4	40	21	2	0·44	+0·07	19	21
	Rothamsted	55	32	51·4	35·1	42·9	− 0·7	35	19	3	0·50	+0·05	*	*
	Ingatestone	55	? 32	51·7	35·2	43·1	− 0·7	36	19	2	0·38	+0·05	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	64	30	54·0	38·4	45·8	+ 2·7	42	10	3	0·27	−0·11	17	19
	Loughborough	59	32	52·0	35·9	43·6	− 0·4	37	17	3	0·27	−0·11	*	*
	Leicester	59	32	52·0	35·7	43·5	− 0·1	37	18	3	0·36	−0·04	9	10
	Cheadle Ⓜ	57	31	49·7	35·8	42·4	− 0·2	29	17	2	0·24	−0·27	*	*
	Churchstoke Ⓜ	57	30	50·8	32·8	41·4	− 2·2	25	36	2	0·15	−0·25	27	30
	Hereford Ⓜ	62	32	54·9	34·1	44·0	− 0·6	47	22	2	0·15	−0·25	*	*
	Cirencester	55	28	50·6	33·3	41·5	− 2·7	24	33	3	0·29	−0·11	19	21
	Oxford	56	33	51·7	35·6	43·3	− 1·9	36	18	3	0·33	−0·07	19	21
5. ENGLAND, S.	London†	57	33	52·7	35·7	43·8	− 2·0	39	18	3	0·39	−0·01	22	24
	Strathfield Turgiss Ⓜ	59	32	53·9	35·2	44·1	− 0·5	43	19	3	0·33	−0·07	*	*
	Dungeness	51	33	48·6	35·9	42·0	− 4·0	18	17	3	0·28	−0·13	*	*
	Hastings (St. Leonard's)	56	33	50·4	37·0	43·4	− 1·9	31	14	3	0·39	−0·06	38	42
	Southampton	62	33	55·7	36·5	45·6	0·0	48	15	3	0·30	−0·17	40	44
	Hurst Castle	54	33	51·4	35·4	43·0	− 3·3	35	18	2	0·26	−0·17	*	*
	Stowell Ⓜ	56	31	51·6	34·4	42·6	− 1·6	36	21	2	0·13	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	54	37	49·5	39·7	44·4	+ 1·8	26	6	7	0·84	−0·33	*	*
	Glasgow	54	36	50·0	38·0	43·7	+ 0·7	29	11	2	0·06	−0·47	29	32
	Ardrossan	53	36	49·6	40·1	44·6	+ 1·6	26	5	2	0·40	−0·13	*	*
	Glenlee Ⓢ	59	28	51·3	34·6	42·6	− 0·5	35	21	2	0·30	?	*	*
	Douglas (Isle of Man)	53	33	49·2	38·1	43·4	− 1·3	26	11	4	0·42	−0·16	35	39
7. ENGLAND, N.W.	Newton Reigny (Penrith)	54	31	49·0	34·9	41·6	− 0·8	20	27	2	0·23	−0·21	28	31
	Barrow-in-Furness	53	37	48·9	39·7	44·0	− 1·3	24	6	3	0·39	−0·08	*	*
	Stonyhurst	53	33	48·3	36·3	42·0	− 1·6	18	16	3	0·49	−0·12	29	32
	Blackpool Ⓜ	51	31	46·4	37·6	41·8	− 3·4	12	17	3	0·31	−0·12	32	36
	Manchester	54	32	49·5	36·5	42·7	− 0·4	28	15	3	0·28	−0·34	*	*
	Liverpool Obsy (Bidston)	50	38	47·9	40·3	43·8	− 1·3	20	5	2	0·19	−0·18	*	*
	Llandudno Ⓜ	51	34	48·1	39·0	43·3	− 2·5	22	8	2	0·44	+0·02	21	23
	Holyhead	51	40	48·0	41·4	44·5	− 1·5	20	2	2	0·31	−0·14	*	*
8. ENGLAND, S.W.	Llandovery	62	27	54·3	31·7	42·5	− 1·9	47	29	2	0·20	−0·48	*	*
	Pembroke	53	40	49·1	41·3	45·0	− 1·4	24	2	1	0·06	−0·45	37	41
	Arlington (N. Devon)	57	30	51·0	33·3	41·7	− 3·2	25	34	2	0·24	−0·47	*	*
	Cullompton Ⓜ	60	29	55·0	33·2	43·6	− 2·0	49	24	2	0·08	−0·52	39	43
	Falmouth	55	37	50·9	38·8	44·6	− 2·2	32	9	2	0·11	−0·64	47	52
	Plymouth	57	35	54·3	37·2	45·3	− 1·5	43	13	2	0·10	−0·48	50	56
	Prawle Point	58	35	53·4	38·3	45·5	− 0·6	40	10	2	0·14	?	*	*
9. IRELAND, N.	Malin Head	55	39	48·7	42·0	45·2	+ 1·9	22	0	7	0·51	?	*	*
	Londonderry	64	34	58·1	38·8	48·0	+ 3·9	55	9	5	0·40	−0·19	*	*
	Mullaghmore	58	36	51·7	40·6	45·9	+ 0·5	33	4	4	0·52	−0·02	*	*
	Belmullet	55	41	50·6	43·0	46·6	0·0	32	0	5	0·57	?	*	*
	Markree Castle	59	31	51·4	37·5	44·1	− 0·5	34	13	5	0·68	+0·12	27	30
	Brookeborough	60	31	51·9	38·2	44·7	+ 1·1	35	11	2	0·30	?	*	*
	Armagh	60	31	52·2	37·9	44·7	+ 0·1	36	11	3	0·26	−0·23	23	26
	Donaghadee	55	38	50·1	41·3	45·5	+ 0·2	27	2	3	0·23	−0·22	*	*
	Edgeworthstown	59	30	52·3	37·9	44·8	+ 1·7	37	11	2	0·21	−0·39	*	*
10. IRELAND, S.	Dublin	54	33	51·6	39·0	45·0	− 0·6	34	8	2	0·19	−0·39	33	37
	Parsonstown	60	31	52·9	37·0	44·6	0·0	39	14	3	0·25	−0·25	38	42
	Kilkenny	62	30	55·0	37·1	45·6	+ 1·0	46	14	1	0·10	−0·41	*	*
	Waterford	58	30	53·5	36·4	44·5	− 1·6	41	16	2	0·14	−0·54	*	*
	Roche's Point	55	36	51·7	39·3	45·2	− 1·1	34	8	1	0·03	−0·79	*	*
	Valencia	59	38	53·1	41·0	46·8	− 0·4	38	3	3	0·34	−0·60	43	48
	Killarney	60	34	53·0	39·1	45·7	− 0·1	38	8	3	0·30	?	*	*
	Foynes	60	33	52·1	38·8	45·1	− 0·2	35	9	2	0·23	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	53	42	51·0	43·3	47·0	− 0·8	35	0	2	0·10	−0·46	*	*
	Jersey (Noirmont)	59	38	51·1	40·3	45·4	− 0·8	31	5	3	0·15	−0·35	55	62

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 14.] *Second Series.* WEEK ENDING MONDAY, 11TH APRIL, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 56.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	For the Week. Difference from Mean.	For the Week. Below 42°	For the Week. Difference from Mean.	From January 4, 1887. Above 42°.	From January 4, 1887. Difference from Mean.	From January 4, 1887. Below 42°.	From January 4, 1887. Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	62	23	47·1	30·7	38·8	4 below.	14	− 4	42	+20	149	+ 33	438	+ 5
	1. SCOTLAND, EAST	65	23	48·5	31·2	39·4	4 below.	18	− 7	39	+18	209	+ 39	492	+ 8
	2. ENGLAND, N.E.	56	29	45·8	35·2	40·2	4 below.	11	−14	24	+ 7	174	− 2	490	+ 57
	3. ENGLAND, EAST	60	31	47·2	35·9	41·3	5 below.	15	−19	23	+ 6	154	− 82	597	+143
	4. MIDLAND COUNTIES	59	28	50·0	34·3	41·8	4 below.	22	−14	30	+12	198	− 59	577	+130
	5. ENGLAND, SOUTH	62	33	49·8	36·5	42·9	4 below.	29	− 9	15	+ 3	208	− 69	468	+127
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	62	24	49·6	32·2	40·5	4 below.	21	− 8	37	+23	183	− 10	384	+ 28
	7. ENGLAND, N.W.	62	27	48·8	33·9	41·0	5 below.	19	−11	31	+18	155	− 43	446	+ 98
	8. ENGLAND, S.W.	61	31	50·7	36·0	43·0	4 below.	32	− 4	17	+ 8	238	− 74	359	+147
	9. IRELAND NORTH	63	25	48·8	32·4	40·2	6 below.	19	−13	36	+23	256	+ 8	328	+ 13
	10. IRELAND, SOUTH	59	24	49·8	34·0	41·5	5 below.	22	−16	31	+22	321	− 28	287	+ 71
	— CHANNEL ISLANDS	58	37	48·9	40·6	44·6	4 below.	24	−15	4	+ 2	239	−122	167	+ 76

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 56.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	Rainfall. From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	Bright Sunshine. From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	1	1	4 less.	61	− 5	12·2	+ 2·1	41	43	228	0	24	0
	1. SCOTLAND, EAST	2	1	4 less.	45	− 4	5·5	− 2·6	42	44	322	+39	33	+ 3
	2. ENGLAND, N.E.	3	1	4 less.	41	− 7	3·9	− 2·5	38	40	313	+80	31	+ 7
	3. ENGLAND, EAST	1	less than ½	4 less.	34	−14	3·7	− 2·1	33	36	343	+41	34	+ 4
	4. MIDLAND COUNTIES	1	less than ½	4 less.	36	−11	4·2	− 2·8	38	41	285	+21	28	+ 1
	5. ENGLAND, SOUTH	1	2	2 less.	35	−11	4·4	− 2·9	39	41	300	+24	29	+ 1
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	1	less than ½	5 less.	48	−10	9·8	− 1·4	54	58	285	+44	29	+ 4
	7. ENGLAND, N.W.	1	less than ½	4 less.	39	−12	6·0	− 2·9	49	53	307	+71	31	+ 7
	8. ENGLAND, S.W.	1	less than ½	6 less.	39	−16	5·5	− 6·5	58	62	391	+95	38	+ 8
	9. IRELAND, NORTH	1	less than ½	5 less.	48	−15	7·3	− 2·0	44	47	291	+31	29	+ 2
	10. IRELAND, SOUTH	1	1	6 less.	41	−18	7·8	− 3·7	61	66	370	+72	36	+ 6
	— CHANNEL ISLANDS	2	2	3 less.	44	−16	4·7	− 4·7	53	57	460	+99	45	+ 9

General Remarks.

Weather has been generally fair and dry, but very cold for the time of year. Towards the end of the period, when the sky was nearly cloudless, the days became warmer, but the nights continued cold, and in many places frosty.

Temperature has been below the mean in all districts, the deficit ranging from 4° in nearly all the English districts to 5° in "Ireland, S." and 6° in "Ireland, N." The highest of the maxima, which were generally recorded on the 11th, varied from 56° in "England, N.E." to 63° in "Ireland, N." and 65° in "Scotland, E." On most days the maxima were very considerably lower than these readings, in many instances being below 50°, and in some cases below 45°. The lowest of the minima, which were registered on different dates in the various districts, ranged from 23° in the east and north of Scotland, to 33° in "England, S." and 37° in the "Channel Islands".

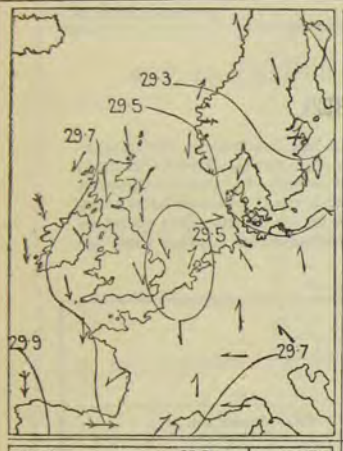
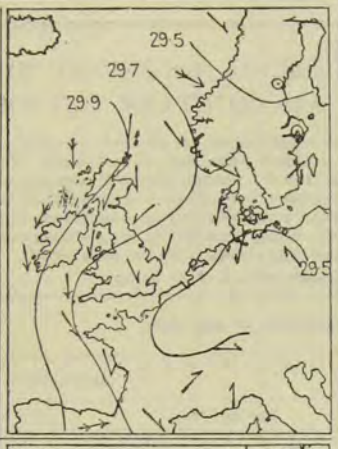
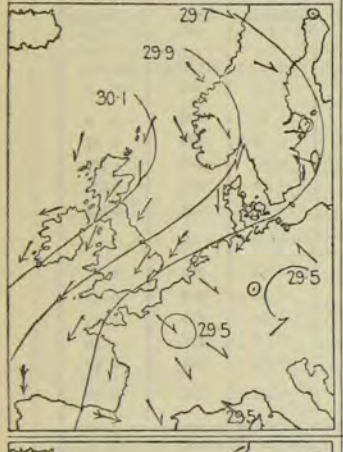
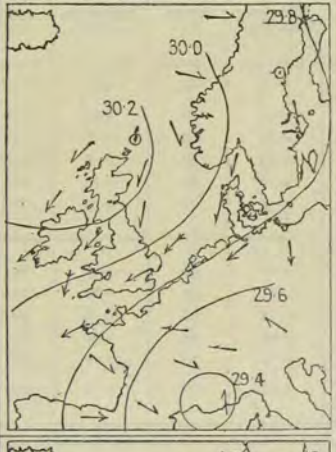
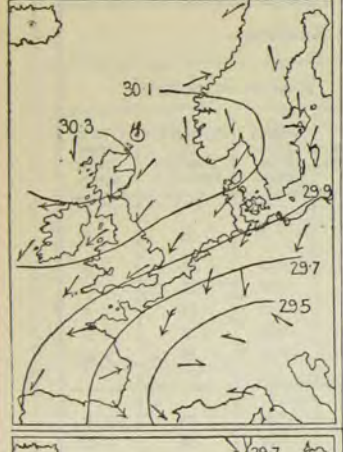
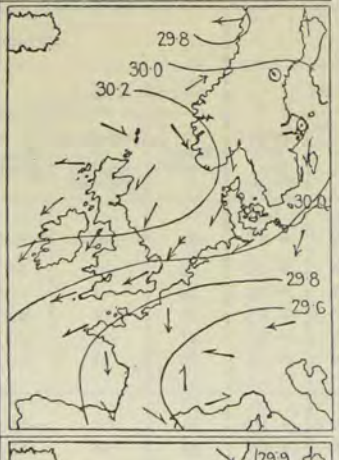
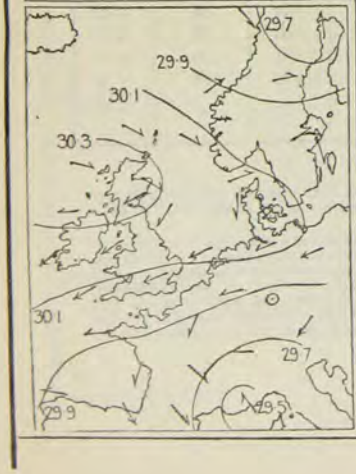
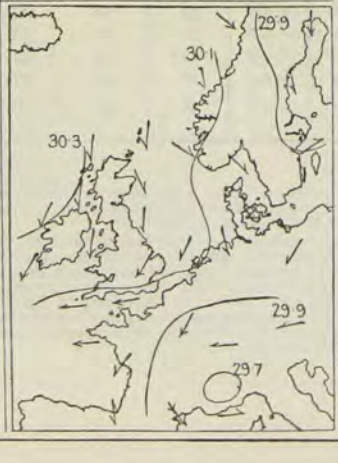
Rainfall has been very slight and much less than the mean in all districts.

Bright sunshine shows a considerable increase on that reported last week, the percentage of the possible amount of duration varying from 36 in "England, E." to 62 in "England, S.W." and 66 in "Ireland, S."

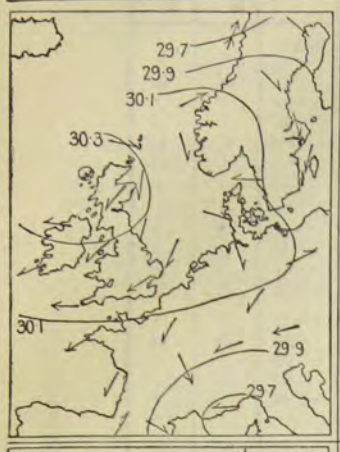
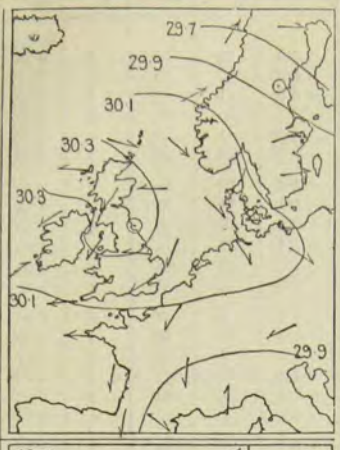
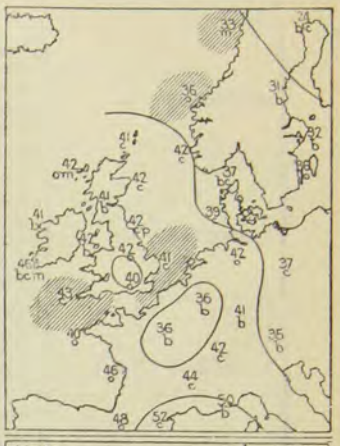
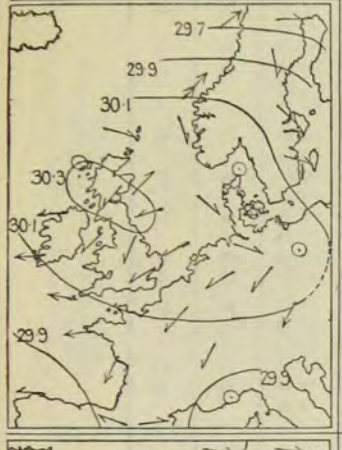
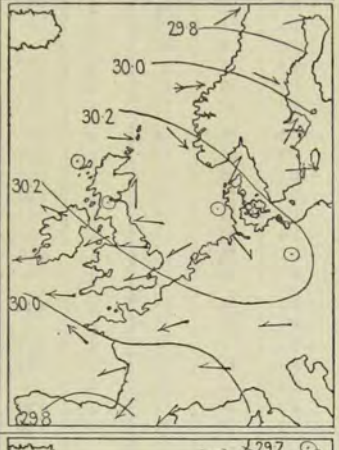
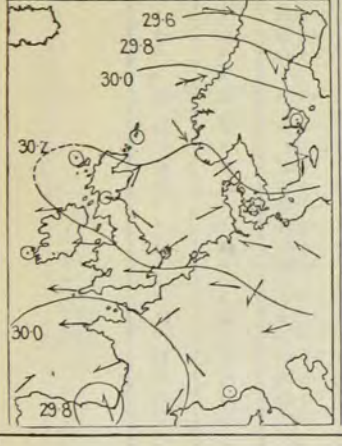
Depressions observed.—At the commencement of the period a large area of low pressure lay over Scandinavia, and a small shallow system over the southern part of the North Sea. These soon disappeared, and the distribution of pressure over our Islands became anti-cyclonic, the only depressions in our area being shown over the north of Scandinavia and the extreme south of France. Northerly to North-Easterly and Easterly winds were generally prevalent over our Islands and the greater part of France; during the earlier days of the week they blew strongly, and over our southern and south-eastern districts attained the force of a gale.

A 51047. 350.—4/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, April 5.** *Weather* changeable and showery, with snow in Scotland as well as at Oxford and Cambridge. Rain falling in south-east of England later, and a thunderstorm occurring at Birkenhead. *Temperature* fallen several degrees in our Islands, but risen at the Continental stations; readings over the United Kingdom ranging from 45° at Valencia and Prawle Point to 32° at Stornoway. *Wind* strong Northerly or North-Easterly in Scotland and North-Westerly on our west and south-west coasts, but light North-Westerly or Northerly over England and the north of France, and Southerly in Germany and the north-west of Norway. Subsequently increasing to a gale on our extreme north-west coasts. *Sea* rough on several parts of our western and northern coasts. *Barometer* falling at all but the Irish and Scotch stations. Pressure highest to the westward and south-westward of our Islands, with a depression off the west of Norway and a large shallow subsidiary disturbance off the east of England. Latter disturbance subsequently moving south-eastwards, and barometer rising in all parts of the United Kingdom.	
		**Wednesday, April 6.** *Weather* fair over the greater part of our Islands, but showery in the extreme south and east as well as over France. *Temperature* fallen in Germany, France, and the south of England, but risen elsewhere; readings over our Islands ranging from 42° on our extreme south-west coasts and also at Spurn Head to 38° at Sumburgh Head. *Wind* moderate North-Westerly in Scandinavia and also in the east and south of France, but North-Easterly elsewhere; strong to a gale over the Channel and east of England. *Sea* rough on most of the English and Irish coasts, but moderate to smooth in the north. *Barometer* rising at all but the southern French stations. Pressure highest over our western and extreme northern coasts, with shallow depressions over Germany and the north-east of France. Depressions subsequently moving south-eastwards, and barometer rising generally.	
		**Thursday, April 7.** *Weather* fine in the south of our Islands and also on the eastern shores of the North Sea, but cloudy elsewhere, with rain in the south of France, and snow squalls at Holyhead. Fine weather setting in later over the whole of our Islands. *Temperature* risen a little in most places; readings over our Islands ranging from 42° at Spurn Head, Yarmouth, Scilly, Prawle Point, and Jersey to 34° at Stornoway. *Wind* North-Westerly in the extreme north of Scotland and south of France, but North-Easterly elsewhere; strong to a gale over the south and south-east of England and also over the greater part of France. *Sea* rough on all our east and south coasts. *Barometer* rising generally. Pressure highest 30·3 ins. and upwards over Scotland, with a large of low reading over South Germany and the south-east of France, and a shallow depression off the north-west of Norway. No important change later.	
		**Friday, April 8.** *Weather* rainy in the Shetlands and west of Norway, and dull over France, but fine elsewhere. Sky clearing in France later. *Temperature* fallen a little over the Netherlands and Germany, but risen elsewhere; readings over our Islands ranging from 44° in London to 38° at Stornoway and Mullaghmore. *Wind* moderate to strong from West or North-West over Scotland, the greater part of Scandinavia, and the south of France, but Easterly or North-Easterly elsewhere. Subsequently veering to North in Scotland. *Sea* rough on the more exposed parts of the English coasts and at Valencia, but slight or smooth elsewhere. *Barometer* rising at all but our extreme northern stations, Pressure highest, 30·3 ins. and upwards in an anticyclone lying over Scotland and the north of Ireland, with a depression over the south east of France and another over the north of Scandinavia. Slight fall taking place later on our western and northern coasts generally.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather during the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, April 9.** *Weather* fair generally but cloudy in places, with showers at some of our eastern stations. *Temperature* fallen a little in Scandinavia, but changed little and irregularly elsewhere; readings over our Islands ranging from 46° at Valencia to 37° at Barrow-in-Furness. *Wind* strong to a gale from South-West in the west of Norway, but moderate from North over the North Sea and fresh to strong from North-East and East over France and the south of our Islands. Subsequently shifting to East in Scotland. *Sea* rather rough off the south-west and south-east of England as well as off the west of Norway, but moderate to smooth elsewhere. *Barometer* falling in the west of Norway, but rising elsewhere. Anticyclone still lying over Scotland and the north of Ireland, with a depression near Bödo and another over the Gulf of Genoa. Slight fall taking place over our Islands later.	
		**Sunday, April 10.** *Weather* fair generally, but dull on our south-west coasts and also in the west of Norway. *Temperature* risen a few degrees in Scandinavia, but fallen elsewhere; readings over our Islands ranging from 46° at Valencia and Scilly to 38° at Loughborough and Oxford. *Wind* strong from South-West in the north-west of Norway, and light or moderate from North-West at the other Scandinavian stations, but Easterly or South-Easterly elsewhere; fresh or strong in force on our west and south coasts. *Sea* rough off the north-west of Norway, and rather so off our south-west and south-east coasts, but moderate to smooth elsewhere. *Barometer* rising at all but our extreme western and northern stations. Pressure highest, 30·3 ins. and upwards, over Scotland and the north-east of England, with an area of low readings over Portugal, and another over the north of Scandinavia. Slight fall taking place generally later.	
		**Monday, April 11.** *Weather* fair generally, but misty or foggy at several of our northern stations. *Temperature* changed somewhat irregularly, but risen in most places; readings over our Islands ranging from 48° at Valencia to 38° at Oxford and 36° at Parsonstown. Subsequently rising to 60° at Loughborough and Cambridge. *Wind* light and variable in Scotland, and strong Westerly in Scandinavia, but chiefly Easterly elsewhere. Light to fresh in force generally. *Sea* rough at the mouth of the Channel, and also at Christiansund, but moderate to smooth elsewhere. *Barometer* falling generally. Area of high pressure extending from Germany across the North Sea to the north-west of our Islands, with lowest readings in the north of Scandinavia. Shallow depression lying, however, over the north of Spain. Fall continuing all day.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; → = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 53 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	50	29	46·0	33·7	39·6	− 2·0	11	30	2	0·08	−0·44	*	*
	Stornoway	51	29	46·1	31·3	38·3	− 4·5	11	38	1	0·15	−0·48	43	45
	Wick	56	27	47·6	30·7	38·7	− 3·3	16	40	1	0·09	−0·28	*	*
	Lairg ℳ	?	24	?	27·9	?	?	?	?	2	0·09	−0·43	*	*
	Glencarron ℳ	62	27	49·2	30·4	39·6	− 2·9	20	44	1	0·02	?	38	40
	Fort Augustus ℳ	58	23	46·6	30·1	38·0	− 5·6	13	42	1	0·05	?	*	*
1. SCOTLAND, E.	Nairn	59	30	48·4	31·9	39·8	− 3·5	18	37	1	0·02	−0·30	*	*
	Aberdeen	54	29	46·6	33·0	39·5	− 3·1	13	33	2	0·10	−0·42	48	51
	Braemar ℳ	61	23	48·6	28·3	38·0	− 2·2	18	49	2	0·08	−0·47	*	*
	Ochtertyre ℳ	65	26	53·9	29·6	41·2	− 2·3	33	48	1	0·05	−0·49	*	*
	Leith	50	27	47·1	33·0	39·7	− 5·0	14	33	1	0·06	−0·31	*	*
	Marchmont ℳ	52	28	46·4	31·1	38·4	− 4·6	12	39	3	0·21	−0·36	35	37
2. ENGLAND, N.E.	Alnwick Castle	45	30	42·6	34·1	38·2	− 5·1	2	27	3	0·20	−0·33	*	*
	Durham	52	29	46·3	32·3	39·0	− 4·5	12	35	4	0·19	−0·32	38	40
	Shields	47	30	45·3	36·3	40·6	− 3·5	9	21	2	0·07	−0·36	*	*
	Scarborough ℳ	46	33	45·1	36·9	40·8	− 3·2	9	19	2	0·04	−0·40	*	*
	York	56	29	51·1	34·0	42·1	− 3·3	34	22	2	0·02	−0·40	?	?
	Spurn Head	47	37	44·6	37·6	40·7	− 4·1	7	14	2	0·04	?	*	*
3. ENGLAND, E.	Hillington ℳ	52	34	47·9	35·9	41·6	− 3·0	17	23	3	0·03	−0·38	34	37
	Yarmouth	45	37	43·4	38·3	40·5	− 4·7	4	11	0	—	−0·41	*	*
	Geldeston	47	36	45·2	37·1	41·0	− 5·3	9	18	0	—	−0·35	31	33
	Cambridge	60	31	49·7	34·6	41·8	− 4·5	22	29	2	0·06	−0·33	34	47
	Rothamsted	58	32	48·7	34·2	41·1	− 4·8	19	30	2	0·07	−0·42	*	*
	Ingatestone	56	33	48·5	35·4	41·6	− 4·5	18	25	1	0·04	−0·31	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	58	28	51·3	34·0	42·2	− 2·9	35	22	0	—	−0·40	41	44
	Loughborough	55	32	50·4	35·3	42·5	− 3·5	32	19	2	0·05	−0·35	*	*
	Leicester	58	30	50·4	34·7	42·2	− 3·1	32	20	1	0·02	−0·40	24	26
	Cheadle ℳ	56	32	48·5	33·2	40·5	− 3·5	18	33	1	0·02	−0·40	*	*
	Churchstoke ℳ	57	28	48·4	31·9	39·8	− 5·8	18	37	1	0·10	−0·30	49	53
	Hereford ℳ	59	32	51·4	35·7	43·2	− 3·4	35	18	0	—	−0·40	*	*
	Cirencester	58	31	49·4	33·9	41·3	− 4·4	21	31	1	0·05	−0·46	43	46
	Oxford	58	33	49·9	36·0	42·6	− 4·5	29	17	0	—	−0·40	34	37
5. ENGLAND, S.	London†	59	35	50·3	37·1	43·4	− 4·2	30	14	1	0·13	−0·29	28	30
	Strathfield Turgiss ℳ	60	33	52·0	35·2	43·2	− 3·1	37	19	0	—	−0·43	*	*
	Dungeness	50	35	45·3	38·6	41·8	− 5·9	9	13	2	0·72	+0·30	*	*
	Hastings (St. Leonard's)	57	35	47·6	37·2	42·2	− 4·6	22	13	2	0·43	−0·04	43	46
	Southampton	62	34	53·3	36·1	44·3	− 2·9	41	17	0	—	−0·48	45	48
	Hurst Castle	56	35	50·0	36·9	43·1	− 4·6	29	14	2	0·04	−0·39	*	*
	Stowell ℳ	59	33	50·1	34·6	42·0	− 3·7	23	21	1	0·10	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	58	29	50·2	32·3	40·8	− 3·2	23	37	1	0·02	−0·95	*	*
	Glasgow	59	32	51·8	33·2	42·1	− 2·4	38	25	0	—	−0·53	44	47
	Ardrossan	56	32	48·6	33·4	40·6	− 4·0	18	32	0	—	−0·53	*	*
	Glenlee ℳ	62	24	50·1	27·6	38·3	− 6·2	23	52	1	0·16	?	*	*
	Douglas (Isle of Man)	54	29	47·3	34·3	40·5	− 4·5	15	29	1	0·04	−0·52	64	69
7. ENGLAND, N.W.	Newton Reigny (Penrith)	62	27	48·8	29·2	38·5	− 5·2	19	46	1	0·04	−0·39	51	54
	Barrow-in-Furness	58	33	50·9	34·3	42·2	− 4·4	34	22	1	0·02	−0·45	*	*
	Stonyhurst	55	30	48·8	33·0	40·5	− 4·8	19	33	0	—	−0·57	53	57
	Blackpool ℳ	59	27	50·3	32·0	40·7	− 5·8	23	38	1	0·12	−0·28	53	57
	Manchester	56	32	49·0	34·0	41·1	− 5·4	20	30	2	0·02	−0·48	*	*
	Liverpool Obsr (Bidston)	54	32	48·9	35·0	41·6	− 4·6	19	27	1	0·02	−0·35	*	*
	Llandudno ℳ	51	34	46·4	36·5	41·2	− 6·1	12	21	1	0·02	−0·38	40	43
	Holyhead	57	34	47·3	36·9	41·9	− 5·4	15	20	1	0·01	−0·43	*	*
8. ENGLAND, S.W.	Llandovery	61	31	52·3	34·0	42·7	− 3·5	39	22	1	0·06	−0·61	*	*
	Pembroke	53	34	49·0	36·6	42·5	− 5·2	26	15	0	—	−0·50	66	71
	Arlington (N. Devon)	56	32	49·0	34·1	41·2	− 5·4	20	30	1	0·06	−0·65	*	*
	Cullompton ℳ	60	34	51·4	35·2	42·9	− 4·2	35	19	1	0·11	−0·50	53	57
	Falmouth	52	36	48·8	38·1	43·2	− 4·6	25	11	0	—	−0·75	58	62
	Plymouth	59	36	53·3	37·6	45·1	− 3·2	40	12	0	—	−0·60	54	58
	Prawle Point	55	34	51·0	36·3	43·3	− 4·0	33	16	0	—	?	*	*
9. IRELAND, N.	Malin Head	49	33	44·7	36·0	40·1	− 4·5	8	21	1	0·01	?	*	*
	Londonderry	63	31	55·6	32·9	44·0	− 1·5	52	25	1	0·06	−0·50	*	*
	Mullaghmore	53	32	47·6	34·7	40·8	− 6·0	16	27	1	0·05	−0·45	*	*
	Belmullet	53	34	47·1	35·3	40·9	− 6·4	14	25	1	0·12	?	*	*
	Markree Castle	58	26	50·0	29·0	39·0	− 6·6	22	48	1	0·03	−0·54	43	46
	Brookeborough	59	25	50·1	28·3	38·7	− 6·6	23	50	1	0·06	?	*	*
	Armagh	55	26	47·9	28·8	37·9	− 7·9	17	47	1	0·04	−0·46	45	48
	Donaghadee	50	35	47·1	37·1	41·9	− 4·4	14	19	0	—‖	−0·45	*	*
	Edgeworthstown	56	27	48·9	29·3	38·6	− 6·4	19	46	0	—	−0·58	*	*
10. IRELAND, S.	Dublin	52	33	47·9	36·8	42·1	− 4·7	23	15	1	0·16	−0·32	60	65
	Parsonstown	59	27	51·0	29·9	40·0	− 6·1	25	46	1	0·12	−0·38	64	69
	Kilkenny	57	30	52·1	32·0	41·6	− 2·2	28	39	1	0·11	−0·41	*	*
	Waterford	55	33	49·9	34·7	41·9	− 5·4	22	28	1	0·08	−0·60	*	*
	Roche's Point	50	33	48·9	36·3	42·3	− 5·2	26	16	1	0·01	−0·89	*	*
	Valencia	56	35	51·0	37·4	43·9	− 2·9	33	13	2	0·25	−0·70	60	65
	Killarney	57	24	48·4	31·4	39·5	− 7·3	18	39	0	—	?	*	*
	Foynes	58	31	49·0	33·5	40·9	− 4·1	20	32	1	0·07	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	51	37	43·1	40·0	43·9	− 4·9	22	6	1	0·19	−0·48	*	*
	Jersey (Noirmont)	58	39	49·7	41·1	45·2	− 2·6	26	3	3	0·29	−0·19	53	57

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop.

(OFFICIAL COPY.)

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, 6, NORTH BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. IV. No. 15.] *Second Series.* WEEK ENDING MONDAY, 18TH APRIL, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 60.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	For the Week. Difference from Mean.	For the Week. Below 42°	For the Week. Difference from Mean.	From January 4, 1887. Above 42°.	From January 4, 1887. Difference from Mean.	From January 4, 1887. Below 42°.	From January 4, 1887. Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	58	27	49·0	32·4	41·2	3 below.	20	− 2	42	+26	169	+ 33	480	+ 30
	1. SCOTLAND, EAST	67	29	52·0	33·7	42·4	2 below.	38	+ 9	23	+ 8	247	+ 52	515	+ 16
	2. ENGLAND, N.E.	63	27	49·1	32·9	40·6	5 below.	20	− 9	34	+22	194	− 5	524	+ 79
	3. ENGLAND, EAST	65	23	51·2	31·7	41·0	7 below.	26	−13	39	+26	180	− 88	636	+169
	4. MIDLAND COUNTIES	66	20	53·4	31·3	41·8	6 below.	32	− 9	42	+28	230	− 63	619	+160
	5. ENGLAND, SOUTH	66	22	51·9	32·5	41·8	7 below.	28	−15	37	+28	236	− 78	505	+155
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	62	24	51·6	34·4	42·6	3 below.	36	+ 2	21	+10	219	− 6	495	+ 38
	7. ENGLAND, N.W.	61	26	50·3	34·1	41·8	5 below.	23	−12	31	+21	178	− 52	477	+121
	8. ENGLAND, S.W.	63	21	52·0	34·3	42·8	6 below.	38	− 2	22	+16	276	− 74	381	+163
	9. IRELAND NORTH	63	26	54·3	35·8	44·6	3 below.	44	+ 7	17	+ 7	300	+ 17	345	+ 21
	10. IRELAND, SOUTH	63	23	54·9	34·6	44·3	4 below.	47	+ 5	21	+14	368	− 19	308	+ 85
	— CHANNEL ISLANDS	61	34	51·1	41·1	45·9	4 below.	31	−12	3	+ 2	270	−133	170	+ 78

Rainfall.

	DISTRICTS. (See p. 60.)	For the Week. Number of Rainy Days.	For the Week. Total Fall.	For the Week. More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	From January 4, 1887. Difference from Mean.	From January 4, 1887. Total Fall.	From January 4, 1887. Difference from Mean.
			10ths of In.				Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	2	2	3 less.	63	− 6	12·4	+ 1·8
	1. SCOTLAND, EAST	0	less than ½	5 less.	45	− 8	5·5	− 3·1
	2. ENGLAND, N.E.	2	1	4 less.	43	− 9	4·0	− 2·8
	3. ENGLAND, EAST	2	1	4 less.	36	−16	3·8	− 2·5
	4. MIDLAND COUNTIES	0	–	5 less.	36	−14	4·2	− 3·2
	5. ENGLAND, SOUTH	1	less than ½	4 less.	36	−13	4·4	− 3·3
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	1	less than ½	5 less.	49	−12	9·8	− 2·0
	7. ENGLAND, N.W.	0	less than ½	4 less.	39	−16	6·0	− 3·3
	8. ENGLAND, S.W.	0	–	6 less.	39	−19	5·5	− 7·1
	9. IRELAND, NORTH	0	less than ½	5 less.	48	−18	7·3	− 2·6
	10. IRELAND, SOUTH	0	–	7 less.	41	−21	7·8	− 4·4
	— CHANNEL ISLANDS	0	–	6 less.	44	−20	4·7	− 5·3

Bright Sunshine.

	DISTRICTS. (See p. 60.)	For the Week. Hours recorded.	For the Week. Percentage of possible Duration.	From January 4, 1887. Hours recorded.	From January 4, 1887. Difference from Mean.	From January 4, 1887. Percentage of possible Duration.	From January 4, 1887. Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	32	32	260	− 8	24	− 2
	1. SCOTLAND, EAST	31	31	353	+ 46	33	+ 4
	2. ENGLAND, N.E.	41	43	359*	+109	33	+10
	3. ENGLAND, EAST	55	57	398	+ 69	36	+ 6
	4. MIDLAND COUNTIES	47	49	332	+ 44	30	+ 4
	5. ENGLAND, SOUTH	48	49	348	+ 44	31	+ 3
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	57	59	342	+ 70	31	+ 6
	7. ENGLAND, N.W.	51	53	357 *	+ 95	33	+ 9
	8. ENGLAND, S.W.	68	71	459	+129	41	+11
	9. IRELAND, NORTH	54	56	345	+ 53	32	+ 5
	10. IRELAND, SOUTH	69	72	439	+107	40	+ 9
	— CHANNEL ISLANDS	62	65	522	+117	47	+11

General Remarks.

Weather has continued fine and dry in all parts of the Kingdom. The nights were generally very cold, while the days were bright and on some occasions rather warmer than they have been of late.

Temperature has remained below the mean in all districts, the deficit ranging from 2° to 4° in Ireland and Scotland, to 5° over the northern parts of England and to 6° or 7° in the other English districts. The highest of the maxima, which were recorded either on the 12th, 17th, or 18th, varied from 58° in "Scotland, N." to 66° in the "Midland Counties" and "England, S." and to 67° in "Scotland, E." The lowest of the minima, which were registered on irregular dates, were unusually low for the time of year. In the "Midland Counties" (at Cirencester) the thermometer fell to 20°, in "England, S.W." (at Llandovery) to 21°, in "England, S." to 22°, and in "Ireland, S." and "England, E." to 23°; in Scotland and the north of Ireland they were a few degrees higher, ranging from 24° to 29°, while in the "Channel Islands" the lowest reading was 34°.

Rainfall has been scarcely appreciable in any part of the Kingdom. Over central and south-western England and in the south of Ireland and the "Channel Islands" the weather has been quite rainless.

Bright sunshine has been more prevalent generally than any recorded since the week ending 20th September 1886. The percentage of the possible amount of duration ranged from 43 to 57 in most of the "Wheat-producing" districts, and from 53 to 72 in the "Grazing" districts. In "Scotland, N." the percentage was 32 and in the "Channel Islands" 65.

Depressions observed.—The only depressions within our area during this period were observed either over Scandinavia or to the southward of our Islands. Over the United Kingdom and the North Sea the conditions remained anticyclonic, but towards the end of the period the barometer began to fall steadily. Light to moderate breezes from north or north-east were very general on our coasts during the greater part of the period, but in the west and north Southerly to Westerly winds subsequently set in, and in the Hebrides reached the force of a gale.

* These values have been altered slightly owing to the receipt of further information.

A 51101. 350.—4/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

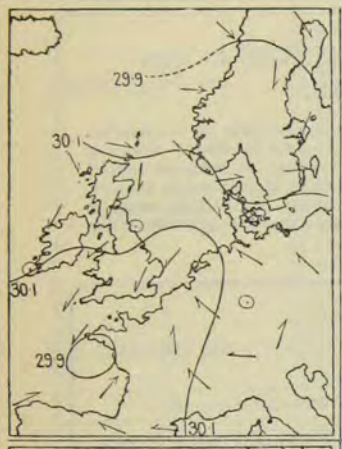
Weather

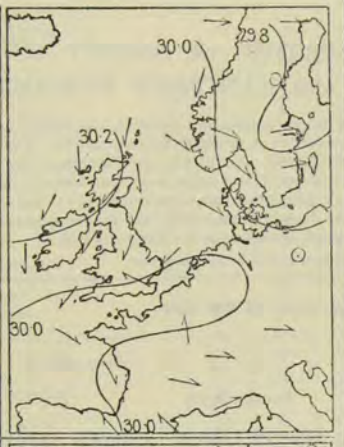
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, April 12.

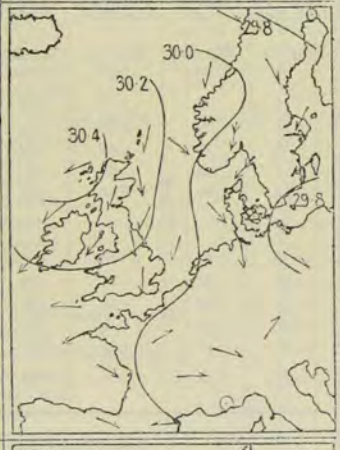
Weather rainy in the west of Norway, but fair or fine elsewhere. Thunderstorms occurring later at many of the French stations, as well as at Jersey.

Temperature fallen a little in Scandinavia, but scarcely changed elsewhere; readings over our Islands ranging from 50° at Jersey to 35° at York. Subsequently rising to 61° at Jersey, 64° at Loughborough and Cambridge, and 65° in London.

Wind light or moderate from West or North-West over Scandinavia and the north of Scotland, and from North-East over the south of our Islands, but South-Easterly or Easterly in the west and south of France.

Sea moderate to smooth.

Barometer falling over England, the Netherlands, and the North Sea, but rising elsewhere. Pressure highest over Germany and the west of Scotland, and lowest in the north of Scandinavia, but small depression lying off the north-west of France. Slight rise taking place over England later.



Wednesday, April 13.

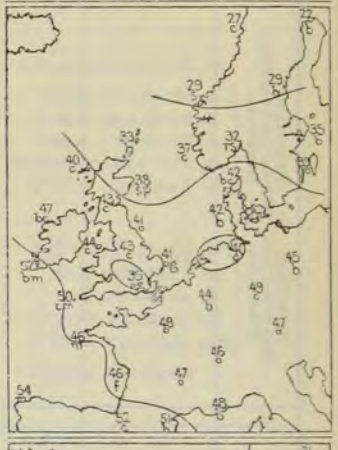
Weather fine in Sweden and the west of our Islands, but cloudy elsewhere, with sleet or cold rain at several of our northern and eastern stations.

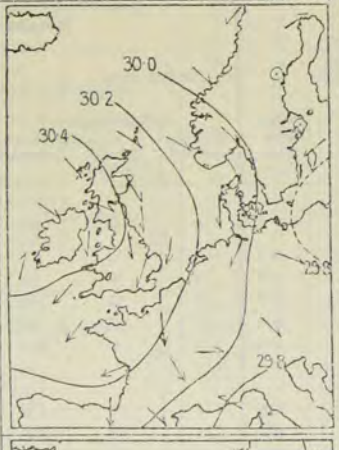
Temperature fallen in most places; readings over our Islands ranging from 52° at Valencia to 33° at Sumburgh Head. Maxima over England from 15° to 20° lower than those of previous day.

Wind fresh to strong from North over Scandinavia, Denmark, and the east of Scotland, but moderate from North-East in the south of our Islands, and from South-East or East in the south of France.

Sea moderate to smooth.

Barometer falling a little in Denmark, Germany, and the east of France, but rising elsewhere. Anticyclone lying over and to the westward of Scotland, with a depression over the south of Sweden and an irregularly formed area of low pressure over the Bay of Biscay and north of France. Former disturbance subsequently moving south-eastwards, and latter filling up.





Thursday, April 14.

Weather dull in France and Germany, but fair or fine in most other countries. Snow showers, however, reported over the east and south-east of England.

Temperature fallen generally; readings over our Islands ranging from 45° at Valencia to 35° at Spurn Head and York, and 34° in the Shetlands. Maxima below 50° in nearly all parts of the Kingdom.

Wind South-Westerly in Germany, but Northerly or North-Easterly elsewhere; fresh or strong in force on our eastern and southern coasts. Subsequently shifting to the southward at Stornoway and Valencia.

Sea rather rough off the east of England and also at Christiansund.

Barometer rising at all but the German and southern French stations. Anticyclone lying over the west of Scotland and the north of Ireland, and a large area of low pressure over Germany and the Baltic. Anticyclone subsequently extending southwards and eastwards, and barometer rising generally.

Friday, April 15.

Weather fair generally, but showers falling on our extreme north-west coast, and snow in the south of Denmark. Showers falling later at many of our northern stations.

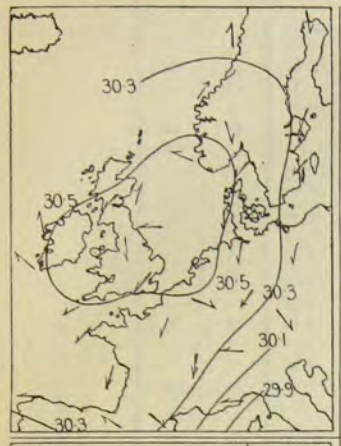
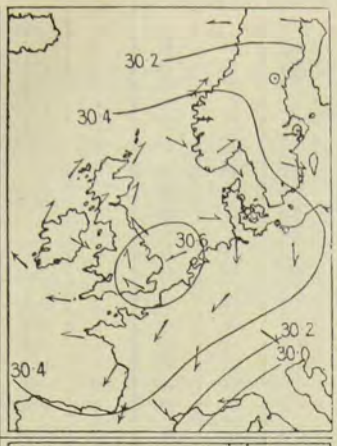
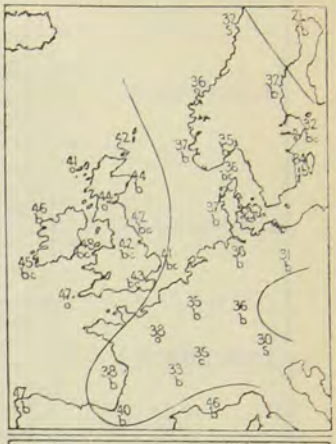
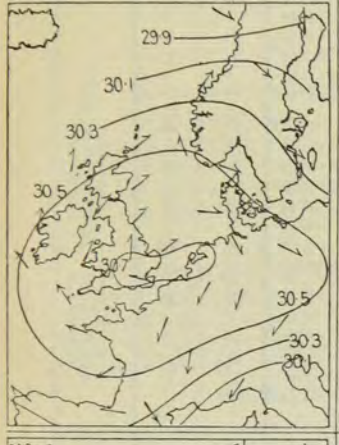
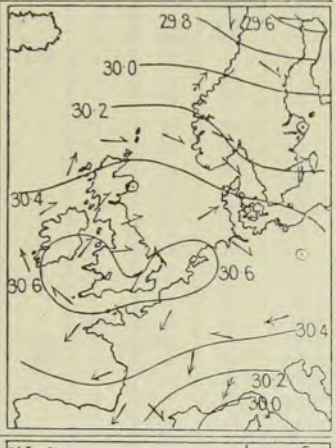
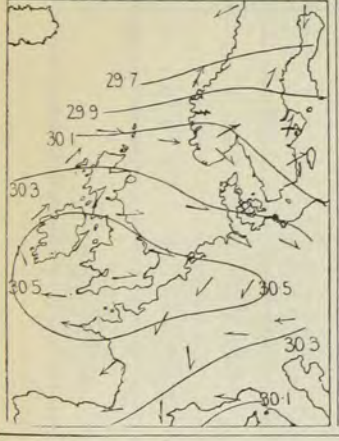
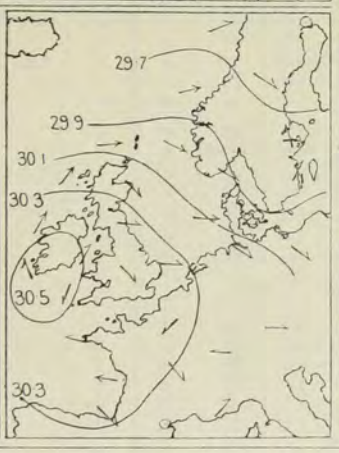
Temperature fallen several degrees in France and Germany, but risen elsewhere; readings over our Islands ranging from 46° in the west and north of Ireland and at Scilly to 3 .° in London.

Wind moderate Westerly or North-Westerly over our east coasts and the North Sea, but light North-Easterly in the south of our Islands and north of France, and strong North-Westerly in the south of France. Subsequently veering to North at our eastern stations.

Sea rather rough at Spurn Head and Cape Gris Nez, but moderate to smooth elsewhere.

Barometer falling over the North Sea and the adjacent coasts, but rising elsewhere. Anticyclone covering the greater part of Ireland, England, and France, with a shallow but well formed depression off the south of Sweden, and a deeper disturbance over the Gulf of Genoa. Swedish depression subsequently moving south-eastwards, and barometer falling in Germany and France.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, April 16.** *Weather* fair generally, but hazy or cloudy in places with snow at Bödo and Munich. *Temperature* risen a little generally; readings over our Islands ranging from 47° at Donaghadee, Parsonstown, and Scilly to 41° at Stornoway, Nairn, Dungeness, and Yarmouth. *Wind* light Southerly in Scotland, but Northerly on the eastern shores of the North Sea, North-Easterly at our southern and the French stations, and South-Easterly in Ireland. *Sea* slight or smooth on all coasts. *Barometer* rising generally. Large anticyclone covering the greater part of our Islands and the North Sea, with lowest pressure over the Gulf of Genoa. Slight fall of barometer taking place on our west coasts later.	
		**Sunday, April 17.** *Weather* fair generally, but dull and unsettled in the north of Scandinavia, with rain at Bödo. *Temperature* fallen a little over England and France, but risen elsewhere; readings over our Islands ranging from 49° at Stornoway and Wick to 38° at Loughborough. Sharp frost occurring over England at night. *Wind* moderate Easterly or North-Easterly over France and Germany, but fresh South-Easterly or Southerly on our west coasts, moderate Southerly or South-Westerly in the north, and strong Westerly in Scandinavia. *Sea* rather rough at Valencia, but moderate to smooth elsewhere. *Barometer* falling in Scandinavia and the north of our Islands, but rising elsewhere. Anticyclone lying over England, the Netherlands, and the north of France, with an area of low pressure over the north of Scandinavia. Fall taking place generally later.	
		**Monday, April 18.** *Weather* rainy in the west of Norway, and dull in the extreme north and north-west of our Islands, but fine elsewhere. Rain falling in north of Scotland later. *Temperature* risen a little in most places; readings over our Islands ranging from 52° at Wick to 35° at Dungeness. Subsequently rising to 63° at Oxford and 65° at Cambridge. *Wind* Easterly or North-Easterly over France and the Channel, but South-Westerly or Westerly over the north of our Islands and the eastern shores of the North Sea. Strong in force in Norway and the north of Scotland. *Sea* rather rough on our extreme south-west coasts as well as at Christiansund, but moderate to smooth elsewhere. *Barometer* falling generally. Anticyclone lying over Ireland, England, and the north of France, with a large area of low pressure over the north of Scandinavia. Fall continuing all day, excepting in west of Norway, where a slight rise reported in evening.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 57 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	52	28	45·7	33·7	39·4	− 3·4	10	30	2	0·12	−0·38	*	*
	Stornoway	52	31	48·9	35·6	41·9	− 2·1	19	25	2	0·41	−0·17	28	28
	Wick	58	32	50·6	35·0	42·4	− 0·9	32	20	4	0·12	−0·24	*	*
	Lairg ℛ	?	28	?	23·9	?	?	?	?	1	0·15	−0·35	*	*
	Glencarron ℛ	54	30	49·3	33·3	40·9	− 2·5	20	33	3	0·55	?	36	36
	Fort Augustus ℛ	55	27	50·5	52·8	41·2	− 3·7	24	35	2	0·04	?	*	*
1. SCOTLAND, E.	Nairn	60	31	52·1	34·7	43·0	− 1·7	38	20	0	—	−0·29	*	*
	Aberdeen	67	29	52·1	33·4	42·3	− 1·6	38	21	1	0·02	−0·49	37	38
	Braemar ℛ	57	29	50·1	32·1	40·7	− 1·0	23	38	0	—	−0·58	19	19
	Ochtertyre ℛ	60	29	56·4	35·6	45·5	+ 0·9	51	18	0	—	−0·53	*	*
	Leith	61	31	51·0	34·3	42·3	− 3·4	34	22	0	—	−0·39	*	*
	Marchmont ℛ	59	29	59·1	32·1	40·7	− 3·5	23	38	1	0·06	−0·52	36	37
2. ENGLAND, N.E.	Alnwick Castle	58	29	47·1	31·6	40·6	− 4·2	14	28	1	0·05	−0·50	*	*
	Durham	62	27	50·7	29·8	39·8	− 5·3	24	46	2	0·14	−0·38	32	33
	Shields	59	29	48·6	32·9	40·4	− 4·9	18	34	1	0·04	−0·41	*	*
	Scarborough ℳ	63	31	48·5	34·1	41·0	− 4·7	18	30	3	0·10	−0·35	*	*
	York	61	27	53·1	30·0	41·0	− 5·7	31	46	2	0·02	−0·41	50	52
	Spurn Head	55	32	46·4	35·7	40·8	− 5·5	12	23	3	0·04	?	*	*
3. ENGLAND, E.	Hillington ℳ	61	24	51·5	31·7	41·1	− 6·0	27	39	3	0·10	−0·32	54	56
	Yarmouth	52	31	45·4	34·4	39·6	− 8·0	10	27	3	0·08	−0·33	*	*
	Geldeston	63	24	50·4	31·9	40·7	− 7·1	24	38	3	0·10	−0·26	55	57
	Cambridge	65	23	55·4	30·4	42·3	− 5·9	51	32	3	0·07	−0·34	56	58
	Rothamsted	63	23	52·0	30·2	40·6	− 7·0	28	45	2	0·03	−0·49	*	*
	Ingatestone	63	26	52·2	31·8	41·5	− 7·2	29	39	0	—	−0·38	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	62	28	54·0	31·7	42·3	− 4·8	45	29	0	—	−0·42	43	45
	Loughborough	64	28	55·0	32·6	43·3	− 4·3	49	26	0	—	−0·42	*	*
	Leicester	64	29	54·0	33·5	43·2	− 4·2	44	24	0	—	−0·45	36	38
	Cheadle ℳ	59	28	51·9	30·6	40·7	− 4·9	28	43	0	—	−0·52	*	*
	Churchstoke ℳ	60	23	52·5	29·2	40·3	− 7·2	29	48	0	—	−0·40	55	57
	Hereford ℳ	66	24	55·2	31·4	42·7	− 5·4	49	36	0	—	−0·42	*	*
	Cirencester	62	20	52·1	29·1	40·1	− 7·2	28	49	0	—	−0·52	50	52
	Oxford	63	27	52·7	32·3	42·0	− 6·4	30	27	0	—	−0·42	49	51
5. ENGLAND, S.	London†	65	27	53·0	32·3	42·2	− 7·1	42	27	0	—	−0·42	34	35
	Strathfield Turgiss ℳ	66	22	55·1	30·2	42·1	− 5·6	50	33	0	—	−0·44	*	*
	Dungeness	56	28	47·7	33·6	40·3	− 8·9	16	31	4	0·12	−0·30	*	*
	Hastings (St. Leonard's)	63	31	49·3	34·9	41·8	− 6·7	20	28	2	0·03	−0·45	55	57
	Southampton	65	27	55·6	32·8	43·7	− 4·8	51	26	0	—	−0·48	55	57
	Hurst Castle	57	26	50·9	32·1	41·1	− 7·7	25	38	0	—	−0·43	*	*
	Stowell ℳ	61	25	51·4	31·7	41·1	− 6·7	26	39	0	—	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	58	29	51·0	36·7	43·5	− 2·3	33	15	2	0·05	−0·81	*	*
	Glasgow	54	31	51·4	36·4	43·5	− 2·1	34	16	0	—	−0·52	41	42
	Ardrossan	57	30	53·0	37·1	44·7	− 0·9	39	14	1	0·01	−0·51	*	*
	Glenlee ℛ	62	24	51·9	29·3	40·1	− 5·2	28	48	0	—	?	*	*
	Douglas (Isle of Man)	58	30	50·6	32·7	41·2	− 5·7	24	35	0	—	−0·55	73	75
7. ENGLAND, N.W.	Newton Reigny (Penrith)	60	26	51·3	29·2	39·7	− 5·5	26	47	0	—	−0·43	49	51
	Barrow-in-Furness	60	33	51·3	37·0	43·8	− 4·0	34	14	0	—	−0·45	*	*
	Stonyhurst	59	27	49·8	32·1	40·5	− 6·0	22	37	1	0·03	−0·54	48	49
	Blackpool ℳ	61	28	50·3	31·2	40·3	− 7·5	23	40	0	—	−0·49	52	54
	Manchester	59	28	50·7	32·8	41·3	− 4·7	24	35	1	0·03	−0·45	*	*
	Liverpool Obsy (Bidston)	55	32	49·9	35·9	42·6	− 4·8	30	17	1	0·03	−0·34	*	*
	Llandudno ℳ	54	31	49·5	36·2	42·5	− 6·3	28	16	0	—	−0·40	56	58
	Holyhead	54	35	49·3	38·7	43·8	− 4·7	26	9	0	—	−0·42	*	*
8. ENGLAND, S.W.	Llandovery	63	21	55·1	27·0	40·4	− 8·0	37	57	0	—	−0·66	*	*
	Pembroke	53	34	47·9	37·9	42·7	− 6·2	22	11	0	—	−0·49	74	77
	Arlington (N. Devon)	60	27	51·6	33·4	42·1	− 5·7	37	24	0	—	−0·70	*	*
	Cullompton ℳ	63	23	53·9	30·9	42·0	− 6·6	33	31	0	—	−0·61	55	57
	Falmouth	54	32	49·5	37·8	43·4	− 5·5	27	12	0	—	−0·75	66	69
	Plymouth	62	32	55·2	36·7	45·5	− 4·1	47	15	0	—	−0·60	75	79
	Prawle Point	59	30	51·0	36·3	43·3	− 5·2	33	16	0	—	?	*	*
9. IRELAND, N.	Malin Head	56	38	49·7	40·6	44·9	− 1·2	26	4	2	0·62	?	*	*
	Londonderry	63	33	58·8	37·0	47·4	+ 0·7	59	14	0	—	−0·53	*	*
	Mullaghmore	59	33	53·7	38·7	45·8	− 1·5	40	9	1	0·03	−0·44	*	*
	Belmullet	56	36	52·7	40·4	46·3	− 1·6	37	4	0	—	?	*	*
	Markree Castle	61	28	55·8	31·9	43·3	− 4·1	52	28	0	—	−0·53	53	55
	Brookeborough	62	26	55·8	31·1	42·9	− 4·0	52	31	0	—	?	*	*
	Armagh	61	27	55·1	33·0	43·5	− 3·5	48	25	0	—	−0·52	54	56
	Donaghadee	61	33	51·6	37·7	44·3	− 3·1	34	12	0	—	−0·47	*	*
	Edgeworthstown	61	28	55·3	31·9	43·0	− 4·1	49	28	0	—	−0·57	*	*
10. IRELAND, S.	Dublin	62	32	54·0	38·2	45·7	− 2·6	41	11	0	—	−0·38	64	67
	Parsonstown	62	27	56·1	30·6	43·0	− 4·6	55	32	0	—	−0·50	65	68
	Kilkenny	63	23	56·6	32·2	43·7	− 4·7	54	28	0	—	−0·52	*	*
	Waterford	60	24	53·6	34·2	43·4	− 5·1	48	22	0	—	−0·67	*	*
	Roche's Point	56	32	51·7	38·1	44·6	− 3·9	35	11	0	—	−0·89	*	*
	Valencia	60	32	54·6	39·0	46·4	− 2·6	43	8	0	—	−0·94	79	82
	Killarney	60	27	56·9	32·2	44·0	− 4·2	55	27	0	—	?	*	*
	Foynes	59	28	56·0	32·7	43·8	− 3·7	52	26	0	—	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	52	39	50·3	42·4	46·2	− 3·4	20	0	0	—	−0·57	*	*
	Jersey (Noirmont)	61	34	51·9	39·7	45·5	− 3·6	34	6	0	—	−0·58	62	65

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℛ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop. At Glencarron the Bright Sunshine values are obtained by Jordan's photographic recorder.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 16.] *Second Series.* WEEK ENDING MONDAY, 25TH APRIL, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

DISTRICTS. (See p. 64.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	60	30	48·5	37·3	43·0	2 below.	27	+ 1	13	+ 1	196	+ 37	493	+ 20
1. SCOTLAND, EAST	58	30	51·6	37·2	44·1	1 below.	35	+ 1	13	+ 2	282	+ 56	528	+ 17
2. ENGLAND, N.E.	64	32	54·3	40·0	46·8	0 (average).	42	+ 8	6	− 3	236	+ 7	530	+ 73
3. ENGLAND, EAST	67	33	57·8	39·9	48·4	1 below.	54	+ 9	6	− 4	234	− 71	642	+162
4. MIDLAND COUNTIES	67	30	56·3	38·4	46·9	2 below.	49	+ 2	10	− 2	279	− 53	629	+156
5. ENGLAND, SOUTH	70	32	56·3	40·2	47·8	2 below.	48	− 2	5	− 2	284	− 73	510	+152
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	58	33	50·6	40·8	45·5	1 below.	30	− 9	3	− 6	249	− 11	408	+ 32
7. ENGLAND, N.W.	57	32	51·0	41·0	45·8	3 below.	31	− 9	3	− 5	209	− 56	480	+113
8. ENGLAND, S.W.	65	28	53·4	39·1	45·9	4 below.	39	− 7	8	+ 4	315	− 76	389	+164
9. IRELAND NORTH	64	28	51·8	40·4	45·8	2 below.	33	− 8	4	+ 1	333	+ 11	349	+ 17
10. IRELAND, SOUTH	64	28	53·1	40·4	46·5	3 below.	38	− 9	4	− 1	406	− 24	312	+ 84
— CHANNEL ISLANDS	59	38	52·7	43·7	48·0	2 below.	42	− 6	0	− 1	312	−134	170	+ 77

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 64.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	6	15	10 more.	69	− 4	13·9	+ 2·8	12	12	272	− 29	23	− 3
1. SCOTLAND, EAST	6	9	4 more.	51	− 5	6·4	− 2·7	22	21	375	+ 35	32	+ 2
2. ENGLAND, N.E.	5	4	1 less.	48	− 7	4·4	− 2·9	30	30	389	+115	33	+10
3. ENGLAND, EAST	5	5	1 more.	41	−16	4·3	− 2·4	42	42	440	+ 77	37	+ 6
4. MIDLAND COUNTIES	4	4	1 less.	40	−14	4·6	− 3·3	38	38	370	+ 52	31	+ 4
5. ENGLAND, SOUTH	5	5	1 more.	41	−12	4·9	− 3·3	48	49	396	+ 60	33	+ 5
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	7	20	10 more.	56	− 9	11·8	?	27	27	369	+ 66	31	+ 5
7. ENGLAND, N.W.	5	7	2 more.	44	−14	6·7	− 3·0	29	29	386	+ 92	32	+ 7
8. ENGLAND, S.W.	5	7	1 more.	44	−17	6·2	− 7·0	44	44	503	+133	41	+10
9. IRELAND, NORTH	6	13	8 more.	54	−16	8·6	− 1·8	26	26	371	+ 43	31	+ 3
10. IRELAND, SOUTH	6	11	5 more.	47	−19	8·9	− 3·9	38	38	477	+110	40	+ 9
— CHANNEL ISLANDS	5	9	4 more.	49	−19	5·6	− 4·9	54	55	576	+128	47	+10

General Remarks.

Weather, although fine over the southern parts of the Kingdom at the commencement of the week, subsequently became unsettled and showery in all districts. Thunder and lightning were observed over the northern parts of Ireland and England and the south of Scotland on the 23rd, and snow showers were experienced at all but our extreme southern stations on the 24th or 25th.

Temperature has been below the mean in all districts excepting "England, N.E.", the deficit ranging from 1° in "Scotland, E.", "England, E.", and "Scotland, W." to 4° in "England, S.W." The highest readings were observed generally on the 19th, when the thermometer rose to between 65° and 70° over the eastern, southern, and central parts of England. The lowest readings were observed in most places on the night of the 24th–25th, but in the south-east of England they occurred earlier in the week. Minima of 32° or below were registered in all districts excepting "England, E.", "Scotland, W.", and the "Channel Islands", in some places the thermometer on the grass fell to 8° or 10° below the freezing point.

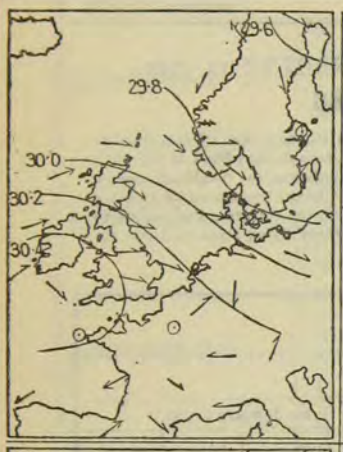
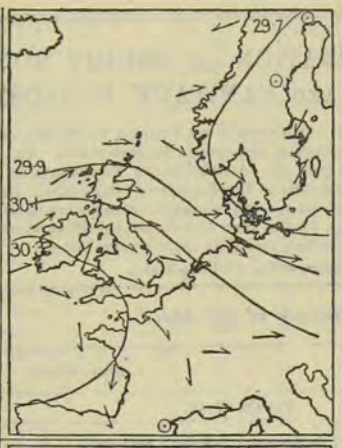
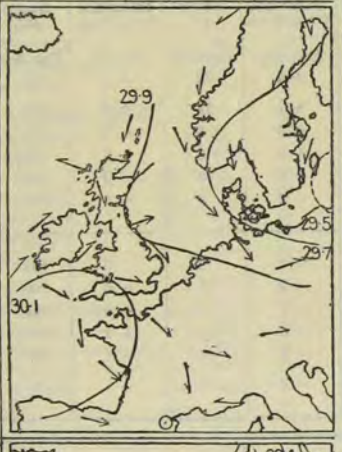
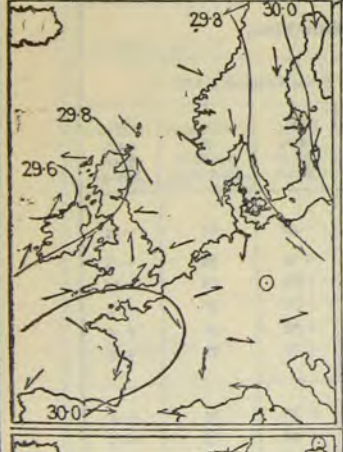
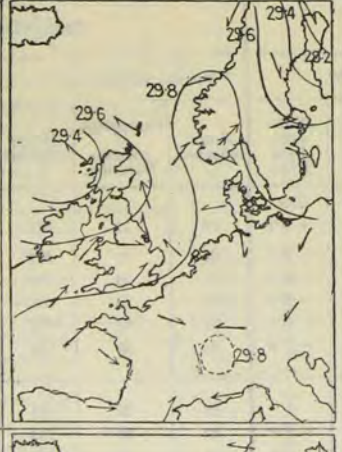
Rainfall has been more than the mean in all districts, excepting "England, N.E." and the "Midland Counties". In Scotland and Ireland the excess has been considerable.

Bright sunshine has been far less prevalent than it was last week in all districts excepting "England, S.", the percentage of the possible amount of duration ranging from 12 in "Scotland, N." to 49 in "England, S." and 55 in the "Channel Islands".

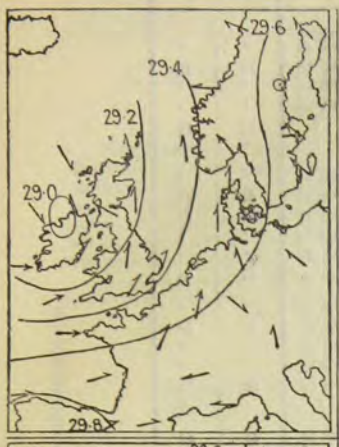
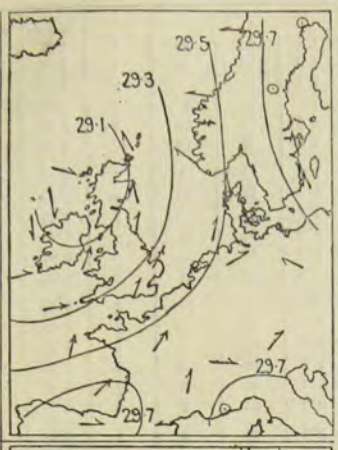
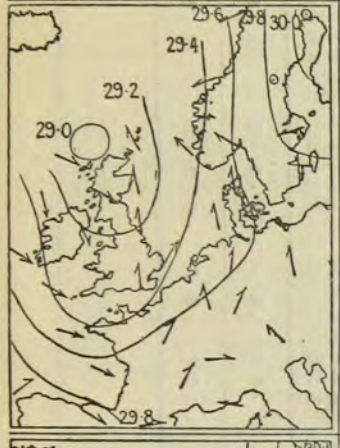
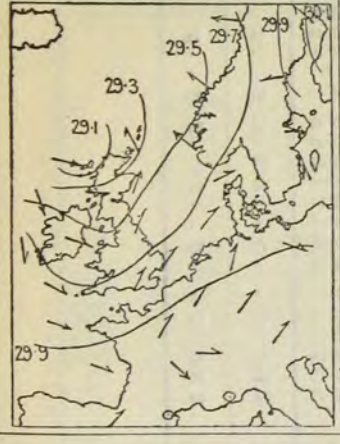
Depressions observed.—At the commencement of the week, when an anticyclone lay to the south-westward of our Islands, a large area of low pressure extended gradually southwards from Scandinavia, while subsidiary systems formed over the North Sea. Westerly winds and showery weather therefore spread southwards over all but our southern stations. During the latter part of the week three depressions of moderate depth advanced over our north and north-west coasts from the Atlantic. Each of these disturbances occasioned a decided freshening of the wind from South-West or South on most of our coasts, but no gales of importance were observed.

A 5116S. 350.—4/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, April 19.** *Weather* rainy in the west of Norway and north of Scotland, but fair or fine in most other parts of Western Europe. *Temperature* risen at all but our extreme northern stations; readings over our Islands ranging from 50° over the central parts of Great Britain to 43° at Liverpool. Subsequently rising to 66° in London and at Oxford and to 67° at Cambridge. *Wind* moderate to strong from the Westward over the north and east of our Islands and the North Sea, but light from North-West on our southern coasts. *Sea* moderate to smooth. *Barometer* falling generally. Pressure highest (30·4 ins. and upwards) in an anticyclone lying over our south-west coasts and lowest (29·7 ins. and less) in a large area lying over Scandinavia. Latter system subsequently moving southwards, and barometer rising a little in extreme north.	
		**Wednesday, April 20.** *Weather* fine in France, the Netherlands, and the south of our Islands, as well as in the north of Scandinavia, but cloudy elsewhere, with rain in Scotland. Rain extending later to all but our southern stations. *Temperature* fallen a little in the north, but changed irregularly elsewhere; readings over our Islands ranging from 51° at York and Valencia to 38° at Sumburgh Head. Subsequently rising to 61° at Loughborough, Hurst Castle, and Oxford, and 64° in London and at Cambridge. *Wind* moderate North-Easterly over the northern parts of Scandinavia and Scotland, but Westerly or North-Westerly elsewhere; light to fresh in force generally. Subsequently backing to South-West on our west coasts. *Sea* moderate to smooth. *Barometer* falling generally. Pressure highest (30·3 ins. and upwards) to the south-westward of our Islands, and lowest over the south of Sweden, but shallow depression lying off the east of Scotland. Depression subsequently moving southwards, but new disturbance appearing off our north-west coasts.	
		**Thursday, April 21.** *Weather* dull in our Islands with rain in Ireland and Scotland, but fine at most of the Continental stations. Slight rain falling later in most parts of England. *Temperature* risen slightly on our extreme north-west coast, but fallen elsewhere; readings over our Islands ranging from 51° at Parsonstown and Valencia to 38° at Aberdeen. *Wind* fresh South-Westerly on our western coasts, and South-Easterly in the east, but Northerly in Scandinavia and Denmark as well as at some of the French stations. *Sea* rough at Valencia, but moderate to smooth elsewhere. *Barometer* rising on the eastern shores of the North Sea, but falling elsewhere. Pressure highest over Spain and the west of France, but relatively high in a long band extending northwards across the Netherlands and the North Sea, with a depression off our extreme north-west coasts. Fall becoming general later.	
		Friday, April 22. *Weather* changeable and showery in our Islands, but fine at most of the Continental stations. Thunder and lightning occuring in evening at some of our north-western stations. *Temperature* risen generally; readings over our Islands ranging from 33° at Shields and Cambridge to 37° at Sumburgh Head. *Wind* fresh South-Westerly over Ireland, England, and the north of France, but South-Easterly or Easterly in the north of Scotland and on the eastern shores of the North Sea, and North-Westerly in Sweden. *Sea* rough at Sumburgh Head and rather rough at Valencia and Pembroke, but moderate to smooth elsewhere. *Barometer* falling generally. Pressure highest over Spain and the Southern parts of the Bay of Biscay, and relatively high over Germany, with a depression off the north-west of Scotland. No important change later.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, April 23.** *Weather* showery in Ireland and England, and also on the eastern shores of the North Sea, but fine in most other localities. Thunder and lightning occurring later in many parts of England as well as in the south of Scotland and north of Ireland. *Temperature* fallen in our Islands, but risen at the continental stations; readings over the United Kingdom ranging from 51° at Scilly to 42° at Malin Head. *Wind* fresh or strong from the South-Westward over the south of our Islands and the north of France, but moderate from South-East over Scotland and the eastern shores of the North Sea, and light from North at Stornoway and Belmullet. *Sea* rough on our south-west coasts and rather rough at Sumburgh Head, but moderate to smooth elsewhere. *Barometer* falling at all but the northern Scandinavian stations. Pressure highest in Spain, with a small but well marked depression off the north-west of Ireland. Depression subsequently moving north-eastwards, and barometer rising again in Ireland.	
		**Sunday, April 24.** *Weather* showery in our Islands, but fine at most of the continental stations. Thunder heard later in the south of England and also in some parts of France. *Temperature* risen at all but the English stations; readings over our Islands ranging from 49° at Yarmouth to 41° at Shields and Barrow-in-Furness, and 40° at Oxford. *Wind* fresh North-Westerly on our western coasts, but South-Westerly or Southerly in the east and South-Easterly on the eastern shores of the North Sea. *Sea* rough on many parts of our western and southern coasts, as well as at Sunburgh Head. *Barometer* falling in the south of England and the north of Scotland, but rising elsewhere. Pressure high over the Gulf of Bothnia, and also in Spain, and depression of previous day now passing away to the northward of Scotland. Rise taking place generally later.	
		**Monday, April 25.** *Weather* fine at many of the Continental stations, but changeable and showery in our Islands, with hail or snow in most districts. *Temperature* fallen generally; readings over our Islands ranging from 48° in the south-east of England to 38° at Stornoway. Sharp ground frost occurring over Great Britain at night. *Wind* moderate from North-West on our west and south-west coasts, and from South-West over France and the south-east of England, but fresh Southerly over the North Sea, and strong Southerly or Westerly in the north of Scotland. *Sea* rough off the north of Scotland, and rather rough on our south-west coasts, but moderate to smooth elsewhere. *Barometer* rising at all but our extreme northern stations. Areas of high pressure lying respectively over Spain and the Gulf of Bothnia, with the centre of a well marked depression off the north of Scotland. Depression subsequently moving away northwards, and barometer rising in north.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 61 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	49	33	47·0	36·9	41·7	− 2·1	14	20	7	0·97	+0·49	*	*
	Stornoway	52	34	46·9	38·3	42·4	− 2·6	18	10	7	2·87	+2·29	12	12
	Wick	55	36	50·1	39·4	44·5	− 0·1	28	7	5	0·59	+0·24	*	*
	Lairg ‡	?	30	?	34·3	?	?	?	?	6	1·58	+1·08	*	*
	Glencarron ‡	52	32	46·3	37·3	41·6	− 2·6	12	18	7	2·26	?	12	12
	Fort Augustus ‡	60	34	52·3	37·7	44·7	− 1·5	37	12	?6	0·76	?	*	*
1. SCOTLAND, E.	Nairn	56	34	50·3	38·1	43·9	− 1·6	30	11	5	0·58	+0·28	*	*
	Aberdeen	58	33	51·6	32·9	41·8	− 3·2	27	35	5	1·05	+0·54	30	29
	Braemar ‡	53	32	48·2	36·5	42·1	− 0·4	24	15	7	0·65	+0·07	15	15
	Ochtertyre ‡	57	30	53·6	36·9	44·9	− 0·6	42	14	6	1·46	+0·93	*	*
	Leith	57	35	53·6	40·9	47·0	+ 0·3	40	3	6	0·87	+0·49	*	*
	Marchmont ‡	55	30	52·1	38·1	44·8	− 0·2	36	11	6	0·68	+0·10	20	20
2. ENGLAND, N.E.	Alnwick Castle	57	32	52·0	38·6	45·0	− 0·8	35	10	6	0·64	+0·09	*	*
	Durham	60	32	54·2	38·9	46·2	0·0	42	9	6	0·26	−0·26	28	28
	Shields	58	34	53·3	40·3	46·5	+ 0·4	39	5	4	0·42	−0·11	*	*
	Scarborough ¶	62	35	56·6	40·7	48·3	+ 1·5	50	4	5	0·32	−0·13	*	*
	York	64	34	56·0	40·1	47·7	− 0·2	48	5	4	0·15	−0·27	31	31
	Spurn Head	58	39	53·7	41·4	47·3	0·0	40	2	4	0·34	?	*	*
3. ENGLAND, E.	Hillington ¶	65	33	57·6	39·3	48·0	− 0·8	53	8	5	0·54	+0·12	42	42
	Yarmouth	61	38	54·4	41·3	47·5	− 1·7	41	2	5	0·43	+0·02	*	*
	Geldeston	66	38	58·5	40·3	49·0	+ 0·2	56	5	3	0·40	+0·03	45	45
	Cambridge	67	35	60·1	39·0	49·1	− 0·8	62	8	4	0·49	+0·09	40	40
	Rothamsted	63	35	57·8	39·4	48·2	− 0·4	54	7	5	0·44	−0·06	*	*
	Ingatestone	64	38	58·3	39·9	48·7	− 2·1	56	6	5	0·59	+0·21	*	*
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	59	31	56·1	38·1	47·2	− 1·8	49	8	5	0·24	−0·17	26	26
	Loughborough	61	35	57·0	40·1	48·1	− 0·5	51	5	3	0·11	−0·31	*	*
	Leicester	63	35	57·4	41·0	48·8	+ 0·2	52	3	3	0·08	−0·37	29	29
	Cheadle ¶	57	33	52·9	38·4	45·3	− 1·6	38	10	5	0·50	−0·02	*	*
	Churchstoke ¶	63	31	54·7	36·4	45·1	− 3·5	45	16	5	0·75	+0·35	53	53
	Hereford ¶	67	34	58·8	37·7	47·8	− 1·6	59	12	5	0·31	−0·11	*	*
	Cirencester													
	Oxford	66	36	56·9	39·0	47·5	− 2·1	51	8	4	0·42	0·00	41	41
5. ENGLAND, S.	London†	66	37	59·7	40·3	49·5	− 0·8	60	5	5	0·58	+0·16	39	39
	Strathfield Turgiss ¶	70	32	59·9	39·0	49·0	+ 0·4	62	8	4	0·54	+0·11	*	*
	Dungeness	61	35	54·1	40·4	46·9	− 3·2	41	4	5	0·35	−0·07	*	*
	Hastings (St. Leonard's)	65	41	53·6	42·5	47·8	− 2·0	41	0	5	0·56	+0·09	57	58
	Southampton	69	36	58·2	40·7	49·0	− 0·7	54	4	5	0·72	+0·24	49	49
	Hurst Castle	61	35	54·4	40·1	46·9	− 2·9	42	5	5	0·28	−0·14	*	*
	Stowell ¶	61	34	54·1	38·1	45·7	− 3·6	42	11	4	0·72	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	52	35	48·8	41·2	44·8	− 1·9	23	2	7	3·25	+2·39	*	*
	Glasgow	54	34	50·3	39·7	44·8	− 1·5	29	6	7	1·96	+1·44	14	14
	Ardrossan	58	36	50·6	41·7	45·9	− 0·6	29	1	7	1·71	+1·19	*	*
	Glenlee ‡	56	33	51·7	40·0	45·6	− 0·3	34	6	6	2·27	?	*	*
	Douglas (Isle of Man)	57	35	51·6	41·2	46·2	− 1·5	33	2	7	1·00	+0·47	39	39
7. ENGLAND, N.W.	Newton Reigny (Penrith)	54	32	51·0	38·5	44·5	− 1·9	32	10	6	1·30	+0·88	26	26
	Barrow-in-Furness	52	38	49·9	42·7	46·1	− 2·7	29	0	6	0·85	+0·40	*	*
	Stonyhurst	52	34	49·9	39·6	44·5	− 3·1	28	7	6	0·57	+0·01	31	31
	Blackpool ¶	53	36	50·5	42·0	46·1	− 2·8	29	0	6	0·46	+0·06	34	34
	Manchester	55	35	51·6	40·1	45·6	− 1·8	33	5	4	0·37	−0·11	*	*
	Liverpool Obsy (Bidston)	57	37	52·4	41·6	46·7	− 1·6	35	1	4	0·36	−0·01	*	*
	Llandudno ¶	56	34	52·1	41·3	46·4	− 3·3	34	2	5	0·55	+0·16	23	23
	Holyhead	52	36	50·7	42·3	46·3	− 3·5	30	0	6	0·82	+0·41	*	*
8. ENGLAND, S.W.	Llandovery	65	28	55·9	34·7	44·8	− 4·8	50	20	5	1·41	+0·76	*	*
	Pembroke	50	39	49·0	43·0	45·9	− 3·8	27	0	5	0·44	−0·04	48	48
	Arlington (N. Devon)	58	32	52·0	39·1	45·2	− 3·4	35	8	5	0·78	+0·08	*	*
	Cullompton ¶	65	28	56·2	36·1	45·7	− 3·9	51	17	3	0·45	−0·16	44	44
	Falmouth	54	36	52·0	41·5	46·5	− 3·3	34	1	5	0·41	−0·31	44	45
	Plymouth	63	38	55·7	43·1	49·1	− 1·6	50	0	5	0·61	+0·03	39	40
	Prawle Point	61	35	53·1	38·9	45·7	− 3·9	39	9	4	0·77	?	*	*
9. IRELAND, N.	Malin Head	52	34	48·7	42·3	45·4	− 1·8	24	0·	7	0·79	?	*	*
	Londonderry	64	33	57·1	40·7	48·5	+ 0·8	51	4	5	1·38	+0·86	*	*
	Mullaghmore	54	35	50·1	42·9	46·3	− 2·4	30	0	6	1·41	+0·93	*	*
	Belmullet	53	36	48·6	43·9	46·1	− 2·7	29	0	6	2·37	?	*	*
	Markree Castle	58	30	51·4	38·1	44·4	− 4·1	33	11	6	1·21	+0·66	26	26
	Brookeborough											?	*	*
	Armagh	60	31	53·1	39·2	45·8	− 2·1	38	8	5	0·93	+0·47	26	26
	Donaghadee	59	34	52·4	40·1	46·0	− 2·3	36	5	6	1·53	+1·05	*	*
	Edgeworthstown	60	28	53·7	38·0	45·5	− 3·3	41	11	6	0·90	+0·37	*	*
10. IRELAND, S.	Dublin	61	33	55·1	42·3	48·4	− 0·6	45	0	5	0·74	+0·26	36	36
	Parsonstown	57	31	52·6	40·1	46·1	− 2·5	37	5	5	1·22	+0·72	36	36
	Kilkenny	64	30	56·0	40·4	47·8	− 0·8	47	4	5	1·01	+0·49	*	*
	Waterford	59	31	53·0	38·0	45·1	− 4·2	39	11	5	0·70	+0·05	*	*
	Roche's Point	55	35	51·3	40·6	45·7	− 3·9	32	4	6	0·75	−0·03	*	*
	Valencia	56	34	53·1	43·3	48·0	− 1·8	42	0	6	1·22	+0·84	43	43
	Killarney	56	28	52·9	37·4	44·8	− 4·6	39	13	6	1·54	?	*	*
	Foynes	54	33	51·1	41·0	45·8	− 3·8	31	3	6	1·54	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	55	39	51·6	44·0	47·6	− 2·7	39	0	5	0·26	−0·30	*	*
	Jersey (Noirmont)	59	38	53·7	45·4	48·3	− 1·9	44	0	4	1·46	+0·99	54	55

Stations marked ¶ are in connection with the Royal Meteorological Society, and those marked ‡ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop. At Glencarron the Bright Sunshine values are obtained by Jordan's photographic recorder.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 17.] *Second Series.* WEEK ENDING MONDAY, 2ND MAY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 68.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	55	23	48·0	33·6	40·5	5 below.	17	−12	32	+22	213	+ 30	525	+ 48
	1. SCOTLAND, EAST	60	24	50·1	32·5	40·8	5 below.	23	−16	35	+27	305	+ 47	563	+ 43
	2. ENGLAND, N.E.*	57	29	50·1	34·5	41·9	6 below.	23	−16	29	+22	259	− 4	560 †	+ 96
	3. ENGLAND, EAST	58	27	50·6	34·3	42·1	8 below.	33	−18	22	+14	267	− 84	664	+176
	4. MIDLAND COUNTIES	58	27	51·4	33·0	41·7	8 below.	26	−27	35	+26	305	− 73	664	+182
	5. ENGLAND, SOUTH	56	31	51·1	37·0	43·7	7 below.	33	−23	14	+ 9	317	− 87	524	+160
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST *	56	24	49·7	33·8	41·3	6 below.	22	−21	31	+24	271	− 24	439	+ 56
	7. ENGLAND, N.W.	54	28	49·5	36·0	42·4	7 below.	28	−17	17	+11	237	− 66	497	+124
	8. ENGLAND, S.W.	57	26	50·4	36·0	42·9	8 below.	32	−19	17	+14	347	− 90	406	+178
	9. IRELAND NORTH	61	27	50·4	34·5	42·1	7 below.	32	−13	21	+15	365	+ 3	570	+ 33
	10. IRELAND, SOUTH	57	28	51·6	33·8	42·3	8 below.	37	−15	23	+19	443	− 34	336 †	+104
	— CHANNEL ISLANDS	57	40	51·2	42·8	46·8	4 below.	34	−21	0	0	346	−150	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 68.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	4	1 less.	74	− 2	14·3	+ 2·7	18	17	290	− 42	23	− 4
	1. SCOTLAND, EAST	3	4	1 less.	54	− 6	6·8	− 2·8	36	34	411	+ 31	32	+ 2
	2. ENGLAND, N.E.*	4	4	1 less.	52	− 7	4·8	− 3·0	39	38	428	+125	33	+ 9
	3. ENGLAND, EAST	5	6	2 more.	46	−15	4·9	− 2·2	45	44	485	+ 86	37	+ 6
	4. MIDLAND COUNTIES	4	8	4 more.	44	−14	5·4	− 2·9	40	39	410	+ 58	31	+ 4
	5. ENGLAND, SOUTH	5	8	3 more.	46	−11	5·7	− 2·9	35	34	431	+ 61	33	+ 4
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST *	4	4	3 less.	60	− 8	12·5 †	− 3·1	41	40	410	+ 80	32	+ 6
	7. ENGLAND, N.W.	4	5	1 more.	48	−14	7·2	− 3·0	46	44	432	+111	33	+ 8
	8. ENGLAND, S.W.	5	10	4 more.	49	−17	7·2	− 6·6	42	41	545	+134	41	+ 9
	9. IRELAND, NORTH	4	3	2 less.	58	−16	8·9	− 2·0	45	43	416	+ 59	32	+ 4
	10. IRELAND, SOUTH	4	3	3 less.	51	−20	9·2	− 4·2	63	61	540	+140	41	+10
	— CHANNEL ISLANDS	6	7	3 more.	55	−18	6·3	− 4·7	31	31	607	+110	46	+ 8

General Remarks.

Weather has continued in an unsettled and changeable condition generally. Frequent falls of rain were experienced in all districts, while at several of our more northern stations snow showers occurred. In some parts of the Kingdom thunder and lightning were reported.

Temperature has again been below the mean in all districts, the deficit ranging from 4° to 6° over Scotland and in the "Channel Islands", to as much as 7° or 8° in Ireland and over the greater part of England. The highest of the maxima, which were registered in most places on 1st May, ranged from 54° in "England, N.W." to 60° in "Scotland, E." and 61° in "Ireland, N." On most occasions the daily maxima were several degrees lower, at many stations not reaching 50°. The lowest of the minima, which were recorded on irregular dates, varied from 23° to 24° in Scotland, and from 26° to 31° in Ireland and England; in the "Channel Islands", however, the lowest reading was 40°.

Rainfall has been rather less than the mean in Ireland and Scotland, but more in most of the English districts.

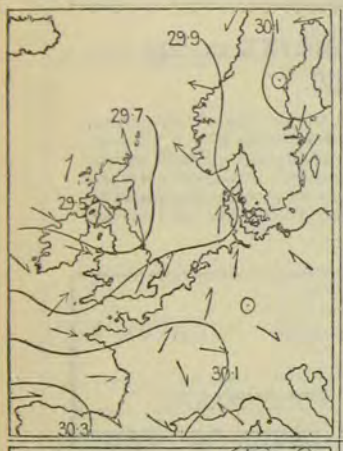
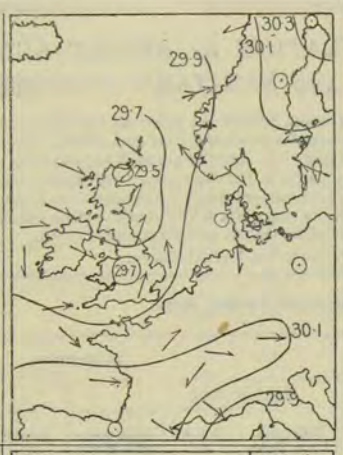
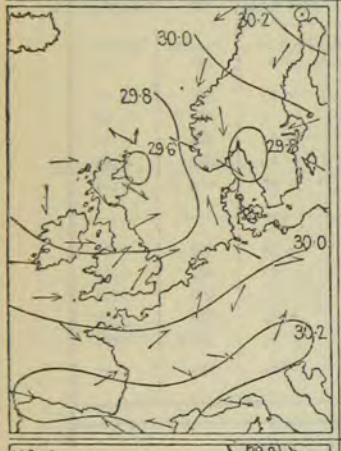
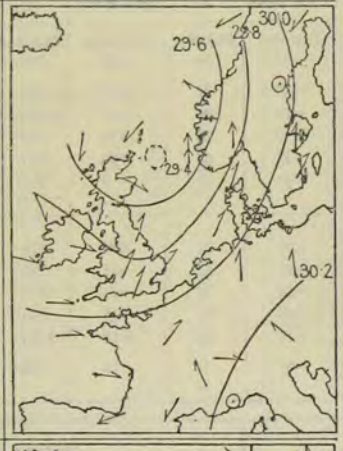
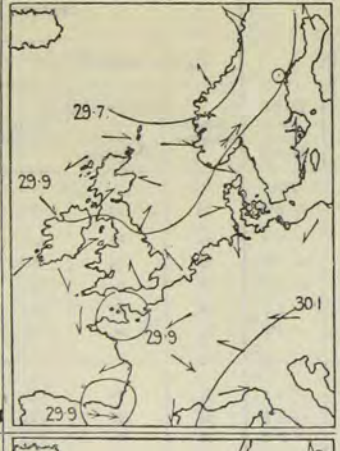
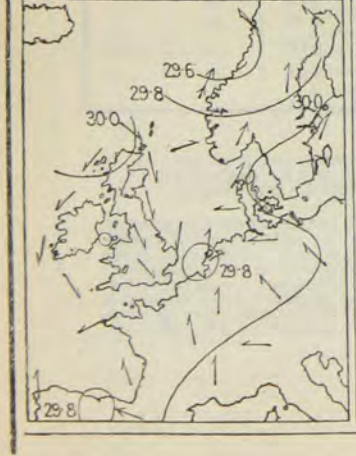
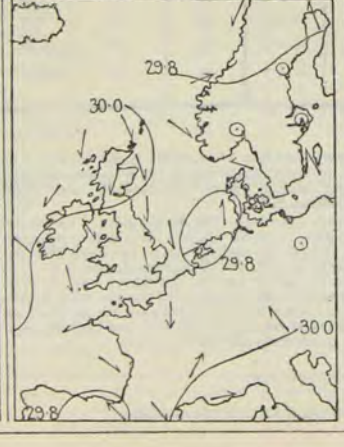
Bright sunshine has been rather more prevalent generally than it was last week, the percentage of the possible amount of duration ranging from 17 in "Scotland, N." to 31 in the "Channel Islands", 34 in "Scotland, E." and "England, S.", 46 in "England, E.", and to 61 in "Ireland, S."

Depressions observed.—The distribution of barometric pressure during this period was rather complex. Several shallow depressions appeared in our Islands and their neighbourhood; during the earlier days of the week (the barometer being highest over France and the Bay of Biscay) the disturbances moved north-eastwards over our northern coasts, but during the latter part of the time a long band of low pressure, having two distinct minima, stretched from Spain over the southern parts of our Islands to the Netherlands. Moderate to fresh winds from between South-West and West prevailed over the United Kingdom till the evening of the 28th, but from that time until the end of the period light Northerly to Easterly airs were general.

* For errata, see page 67.
† These values have been altered slightly owing to the receipt of further information.

A 51239. 350.—5/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, April 26.** *Weather* fine at our south-eastern and many of the Continental station, but cloudy elsewhere, with showers on our western and northern coasts. Rain or snow falling later in nearly all parts of Ireland and England. *Temperature* changed little and irregularly; readings over our Islands ranging from 48° at Jersey to 37° at Stornoway and Donaghadee. Maxima below 50° at most of our western and northern stations. *Wind* Westerly on the west coasts of our Islands and France, but South-Westerly in the east and Southerly in the north; strong in force at the Channel stations. *Sea* rough in the west and south-west, but moderate to smooth elsewhere. *Barometer* rising at all but our western stations. Pressure highest in Spain, but relatively high in Sweden, with a small but well marked depression near the mouth of the Clyde. Depression subsequently moving north-eastwards, but subsidiary disturbance passing eastwards across England.	
		**Wednesday, April 27.** *Weather* showery in many parts of our Islands and also in Scandinavia, but fine elsewhere. Hail falling later at some of the English and Irish stations. *Temperature* fallen generally; readings over the United Kingdom ranging from 46° at Jersey to 36° at Stornoway and Shields and 35° at Nairn. Frost occurring in many parts of Great Britain at night; thermometer on grass in London falling to 21°. *Wind* Westerly in our Islands and the west of France, and South-Westerly in the Netherlands, but South-Easterly in Denmark and Scandinavia; moderate or fresh in force generally. Subsequently veering to North-west on our western and northern coasts. *Sea* rather rough in the extreme south-west. *Barometer* rising in most parts of the United Kingdom, but falling elsewhere. Long band of high pressure stretching from South Germany to the north of Spain, and area of similarly high readings lying over the north of Sweden. Small depression of previous day now lying off the north-east of Scotland, and another disturbance near the Skager Rack.	
		**Thursday, April 28.** *Weather* rainy in the north of Scotland and also in the north-west of France, but fair or fine elsewhere. Rain setting in later over the south of our Islands, with a thunderstorm at Roche's Point. *Temperature* risen a little generally; readings over the United Kingdom ranging from 50° at Scilly to 40° in the Shetlands. *Wind* light South-Easterly at the mouth of the Channel, and Westerly over the greater part of our Islands, but strong to a gale from South-East on the eastern shores of the North Sea. Subsequently backing to South-East in the north and east of England. *Sea* moderate to smooth. *Barometer* falling a little in the south-west of England and west of France, but rising elsewhere. Pressure highest over Switzerland and the north of Italy, depression of previous two days now lying off the west of Norway, but new disturbance shown off our south-west coasts. Latter system subsequently moving eastwards over the north of France, and barometer falling at all our southern stations.	
		**Friday, April 29.** *Weather* fine in the west and north of our Islands and the south of Scandinavia, but dull elsewhere, with rain in many places. Improvement taking place in east later. *Temperature* risen several degrees over Germany, the Netherlands, and the east of France, but fallen elsewhere; readings over our Islands ranging from 49° at Valencia to 39° at Sumburgh Head, Spurn Head, and Loughborough. Sharp frost occurring over the midland and eastern counties at night. *Wind* light to moderate from the northward over our Islands and the north of France, but Southerly in the East of France, Easterly in Denmark, and strong from South-West in Norway. *Sea* moderate to smooth. *Barometer* rising in our Islands, Norway, and the west of France, but falling elsewhere. Pressure highest over Northern Italy, with depressions over the north-west of Norway, the Netherlands, and the north of Spain. All three disturbances subsequently moving slowly north-eastwards.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

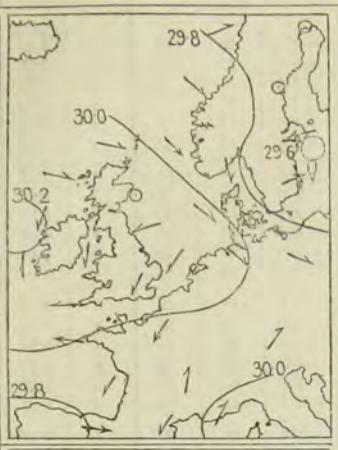
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Saturday, April 30.

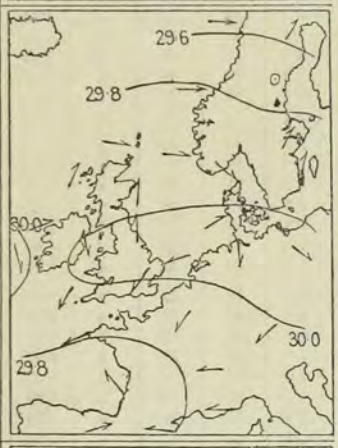
Weather fair over the greater part of our Islands and also in the north of Sweden, but cloudy elsewhere, with rain in several parts of France and a thunderstorm at Rochefort. Thunderstorms occurring late in the south-west of France and also at Valencia.

Temperature fallen several degrees over Germany and the east of France, but changed irregularly elsewhere; readings over our Islands ranging from 49° at Scilly to 38° at Sumburgh Head and 36° at Loughborough. Frost occurring over central England at night.

Wind moderate Northerly over the more northern parts of our Islands, but North-Easterly on our southern and the French coasts.

Sea moderate to smooth.

Barometer falling a little over Scandinavia and the south of France, but rising elsewhere. Area of high pressure lying over our Islands, with a depression over the south of Sweden and a shallow disturbance over Spain. Slight fall taking place later in France and the north of Scotland.



Sunday, May 1.

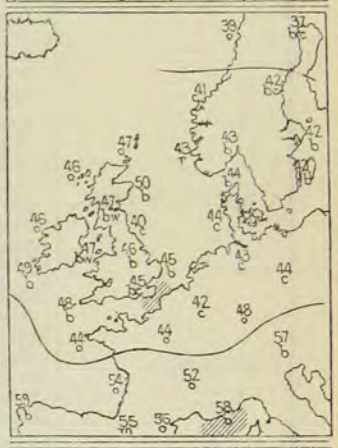
Weather dull in France, the north of Scotland, and the west of Norway, but fair or fine elsewhere; thunderstorms occurring later in the south-west of France.

Temperature risen over the greater part of our Islands, but fallen at many of the continental stations; readings over the United Kingdom ranging from 50° at Aberdeen and 49° at Leith and Valencia to 37° at Loughborough.

Wind light to moderate from West and South-West over Scotland and the west of Norway, but North-Easterly or Easterly at our southern and the French stations.

Sea moderate in the Channel, but slight or smooth elsewhere.

Barometer falling in the northern part of our Islands and Scandinavia, and also over Spain and the south-west of France, but rising elsewhere. Anticyclonic band extending across Ireland, England, and the Netherlands, with a shallow depression over the north-west of Norway and another over Spain. Latter disturbance subsequently moving northwards, and barometer falling generally.



Monday, May 2.

Weather rainy in the south of England, and dull in Germany and the north of Scotland, as well as at some of the French stations, but fair or fine elsewhere. Rain extending later to several of our more northern stations.

Temperature risen in Ireland, and also in France and Germany, but fallen elsewhere; readings over our Islands ranging from 50° at Valencia and 49° at Jersey to 41° at Loughboro', Liverpool, Holyhead, and Prawle Point.

Wind moderate South-Westerly in France, fresh North-Easterly in the south of England, light Southerly on our northern coasts, and moderate North-Westerly in Sweden.

Sea rough at Lisbon, and rather rough at Yarmouth, Cape Grisnez, and Corunne, but moderate to smooth elsewhere.

Barometer falling at all but the Scandinavian stations. Pressure highest over Denmark and Norway, with an elongated depression over the English Channel and north of France. Depression subsequently extending northwards and eastwards, and barometer falling generally.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

ERRATA.—Owing to an error in calculation, the figures printed under the head of "Rainfall, from January 4, 1887—Difference from the Mean," for Scotland, W., have been erroneous. Some of the corresponding values for England, N.E., were also incorrect. Below will be found the correct values for both districts:—

For SCOTLAND, W.				For ENGLAND, N.E.	
	Difference from Mean.		Difference from Mean.		Difference from Mean.
Week ending January 10	0 (average).	Week ending March 7	− 2·8	Week ending January 31	− 0·3
„ „ 17	− 0·3	„ „ 14	− 2·9	„ February 7	− 0·5
„ „ 24	− 0·5	„ „ 21	− 3·3	„ „ 14	− 0·9
„ „ 31	− 0·9	„ „ 28	− 2·8	„ „ 21	− 1·8
„ February 7	− 0·8	„ April 4	− 3·1	„ „ 28	− 1·7
„ „ 14	− 1·7	„ „ 11	− 3·5	„ March 7	− 2·2
„ „ 21	− 2·2	„ „ 18	− 4·1	„ „ 14	− 2·0
„ „ 28	− 2·1	„ „ 25	− 2·9	„ „ 21	− 2·1

III.—DATA from which the SUMMARY on page 65 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	52	32	47·4	35·6	41·2	− 3·4	15	24	6	0·57	+0·12	*	*
	Stornoway	52	32	48·0	36·0	41·7	− 4·1	17	23	5	0·55	−0·03	20	19
	Wick	54	32	48·6	35·0	41·5	− 3·8	18	27	5	0·68	+0·13	*	*
	Lairg S	?	28	?	32·5	?	?	?	?	4	0·23	−0·27	*	*
	Glencarron S	54	27	46·3	32·2	38·9	− 5·8	12	35	3	0·24	?	16	15
	Fort Augustus S	55	23	49·5	30·3	39·4	− 7·5	21	43	4	0·26	?	*	*
1. SCOTLAND, E.	Nairn	56	28	49·6	33·9	41·4	− 4·9	21	31	4	0·51	−0·02	*	*
	Aberdeen	54	32	49·1	34·1	41·2	− 4·7	20	30	5	0·21	−0·29	40	38
	Braemar S	55	24	47·2	29·1	37·7	− 5·3	15	46	2	0·54	+0·01	26	25
	Ochtertyre S	60	26	53·6	31·4	42·0	− 4·0	32	30	3	0·66	+0·14	*	*
	Leith	57	29	50·9	34·0	42·0	− 5·7	25	22	2	0·04	−0·34	*	*
	Marchmont S	56	31	49·9	32·3	40·7	− 5·0	22	37	4	0·19	−0·36	41	39
2. ENGLAND, N.E.	Alnwick Castle	53	32	48·0	35·7	41·6	− 5·1	17	25	2	0·05	−0·47	*	*
	Durham	57	32	51·3	32·7	41·6	− 5·4	26	36	3	0·33	−0·17	39	38
	Shields	54	32	49·4	34·4	41·5	− 5·5	21	29	3	0·21	−0·21	*	*
	Scarborough ℳ	56	32	50·4	34·8	42·3	− 5·5	32	20	6	0·74	+0·31	*	*
	York	57	29	52 6	32·7	42·2	− 6·7	40	26	4	0·50	+0·08	?	?
	Spurn Head	56	35	48·7	36·7	42·4	− 5·5	25	15	5	0·57	?	*	*
3. ENGLAND, E.	Hillington ℳ	58	27	51·7	32·7	41·7	− 8·2	27	36	3	0·40	−0·02	48	47
	Yarmouth	51	33	48·3	37·7	42·8	− 7·5	24	12	5	0·62	+0·21	*	*
	Geldeston	66	31‖	50·1	35·6	42·5	− 7·1	30	18	5	0·53	+0·15	50	49
	Cambridge	58	26	53·0	31·6	42·0	− 9·0	31	29	5	0·44	+0·04	36	35
	Rothamsted	55	29	50·2	33·5	41·5	− 7·9	23	33	5	0·47	−0·02	*	*
	Ingatestone	54	32	50·0	34·6	41·9	−10·0	22	29	5	1·01	+0·63	44	43
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	58	28	53·7	33·3	43·0	− 7·0	44	24	4	0·72	+0·30	41	40
	Loughborough	56	28	51·9	33·1	42·1	− 7·7	38	25	3	1·02	+0·60	*	*
	Leicester	58	29	52·1	32·5	41·8	− 7·8	28	37	5	0·93	+0·48	35	34
	Cheadle ℳ	53	31	49·5	32·8	40·8	− 7·3	21	35	4	0·30	−0·22	*	*
	Churchstoke ℳ	53	29	49·3	31·8	40·1	− 9·5	20	38	5	0·88	+0·48	39	38
	Hereford ℳ	56	30	52·1	33·1	42·1	− 8·1	38	25	3	0·88	+0·46	*	*
	Cirencester	53	27	51·3	32·3	41·3	− 8·1	26	37	5	1·06	+0·54	46	45
	Oxford	55	32	51·0	35·1	42·7	− 7·7	34	19	4	0·70	+0·28	41	40
5. ENGLAND, S.	London†	56	32	53·1	37·7	44·6	− 6·5	36	12	5	0·72	+0·30	32	31
	Strathfield Turgiss ℳ	55	31	52·8	33·8	42·8	− 6·8	40	23	4	0·54	+0·14	*	*
	Dungeness	51	37	49·6	40·1	44·6	− 6·2	26	5	5	0·97	+0·57	*	*
	Hastings (St. Leonard's)	51	36	49·3	38·4	43·6	− 7·0	26	10	5	0·73	+0·28	39	38
	Southampton	56	32	52·9	35·7	43·9	− 6·6	40	18	4	0·60	+0·13	34	33
	Hurst Castle	52	37	51·0	38·9	44·7	− 6·1	32	9	5	0·69	+0·27	*	*
	Stowell ℳ	53	32	50·3	34·1	41·8	− 8·4	23	31	6	1·08	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	52	31	49·0	34·7	41·5	− 5·8	20	28	3	0·66	−0·20	*	*
	Glasgow	55	32	50·8	35·6	42·8	− 4·1	32	18	3	0·21	−0·31	31	30
	Ardrossan	56	33	50·7	36·3	43·2	− 3·9	25	16	3	0·12	−0·40	*	*
	Glenlee S	54	24	49·4	29·0	38·7	− 7·8	21	47	5	0·78	?	*	*
	Douglas (Isle of Man)	52	31	48·4	33·4	40·5	− 7·4	18	32	5	0·37	−0·14	51	49
7. ENGLAND, N.W.	Newton Reigny (Penrith)	52	28	49·6	31·0	39·9	− 7·2	21	41	4	0·35	−0·07	44	42
	Barrow-in-Furness	54	36	49·0	37·1	42·8	− 6·7	26	14	4	0·67	+0·24	*	*
	Stonyhurst	51	33	48·8	35·6	41·9	− 6·7	19	25	5	0·83	+0·27	38	37
	Blackpool ℳ	53	33	49·8	36·1	42·6	− 7·2	29	17	3	0·45	+0·05	48	46
	Manchester	53	33	49·5	34·3	41·5	− 7·2	21	29	5	0·52	+0·04	*	*
	Liverpool Obsy (Bidston)	52	35	50·4	37·3	43·5	− 6·1	30	13	4	0·63	+0·25	*	*
	Llandudno ℳ	51	36	49·0	37·6	43·0	− 7·2	25	12	4	0·27	−0·12	52	50
	Holyhead	52	37	49·7	39·0	44·1	− 6·4	27	8	3	0·18	−0·23	*	*
8. ENGLAND, S.W.	Llandovery	56	26	52·0	32·1	41·6	− 9·0	28	39	7	1·63	+1·00	*	*
	Pembroke	49	38	47·1	39·3	43·0	− 7·3	18	8	5	0·46	−0·02	46	45
	Arlington (N. Devon)	52	31	49·0	34·0	41·1	− 8·4	20	32	4	1·28	+0·59	*	*
	Cullompton ℳ	56	29	51·9	33·0	42·0	− 8·6	28	25	3	1·47	+0·89	39	38
	Falmouth	52	36	49·7	38·0	43·6	− 6·7	28	11	3	0·46	−0·23	42	42
	Plymouth	57	33	52·5	37·9	44·9	− 6·4	38	11	5	0·86	+0·31	39	39
	Prawle Point	54	35	50·9	37·7	44·0	− 6·3	32	12	5	0·72	?	*	*
9. IRELAND, N.	Malin Head	51	35	48·3	37·3	42·5	− 5·5	23	13	5	0·33	?	*	*
	Londonderry	61	32	55·0	34·9	44·5	− 4·2	47	20	4	0·20	−0·33	*	*
	Mullaghmore	54	35	50·3	36·9	43·3	− 6·3	31	14	4	0·53	+0·03	*	*
	Belmullet	51	32	48·3	39·1	43·5	− 5·8	23	8	5	0·57	?	*	*
	Markree Castle	53	27	49·4	31·4	40·6	− 9·4	21	39	5	0·33	−0·20	46	44
	Brookeborough	55	28	51·4	30·9	40·7	− 8·6	26	42	1	0·07	?	*	*
	Armagh	53	30	50·6	33·2	41·5	− 7·3	24	34	5	0·22	−0·28	43	41
	Donaghadee	53	31	49·0	36·7	42·6	− 6·4	26	15	4	0·35	−0·14	*	*
	Edgeworthstown	54	28	50·9	30·1	41·0	−10·1	25	44	4	0·44	−0·08	*	*
10. IRELAND, S.	Dublin	55	34	49·7	35·6	42·3	− 7·5	29	18	4	0·75	−0·28	54	52
	Parsonstown	55	30	52·0	31·3	41·2	− 8·4	28	41	4	0·25	−0·25	57	55
	Kilkenny	57	29	55·9	32·1	42·7	− 7·1	43	28	3	0·18	−0·31	*	*
	Waterford	55	28	51·4	31·6	41·0	− 9·2	26	39	7	0·34	−0·28	*	*
	Roche's Point	52	34	50·0	36·3	42·8	− 7·5	30	16	4	0·17	−0·58	*	*
	Valencia	55	35	52·7	37·6	44·8	− 5·5	38	12	2	0·22	−0·57	78	76
	Killarney	54	30	51·9	31·1	41·0	− 9·2	28	42	5	0·29	?	*	*
	Foynes	56	32	51·3	35·0	42·8	− 6·8	35	20	4	0·44	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	54	40	50·4	42·4	46·2	− 4·8	29	0	5	0·54	+0·03	*	*
	Jersey (Noirmont)	57	40	51·9	43·1	47·3	− 3·7	37	0	6	0·91	+0·49	31	31

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop. At Glencarron and Ingatestone the Bright Sunshine values are obtained by Jordan's Photographic Recorder.

‖ The corresponding value for last week should read "35" instead of "38."

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 18.] *Second Series.* WEEK ENDING MONDAY, 9TH MAY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 72.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	60	29	53·2	39·5	45·9	0 (average).	38	+ 6	7	− 1	251	+ 39	532	+ 45
	1. SCOTLAND, EAST	67	29	56·4	38·2	46·8	0 (average).	50	+ 5	11	+ 4	355	+ 56	574	+ 46
	2. ENGLAND, N.E.	69	30	54·2	41·2	47·3	1 below.	40	− 5	2	− 4	299	− 3	562	+ 89
	3. ENGLAND, EAST	70	37	57·2	41·8	49·0	2 below.	50	− 2	1	− 5	317	− 88	665	+168
	4. MIDLAND COUNTIES	73	33	57·1	41·4	48·8	2 below.	50	−10	2	− 5	355	− 78	666	+173
	5. ENGLAND, SOUTH	70	40	57·9	44·1	50·6	1 below.	60	− 3	0	− 3	377	− 83	524	+155
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	67	31	56·4	41·6	48·6	1 above.	48	0	1	− 4	319	− 20	440	+ 51
	7. ENGLAND, N.W.	67	31	54·5	41·2	47·5	3 below.	42	− 9	2	− 2	279	− 67	499	+121
	8. ENGLAND, S.W.	68	31	56·1	41·9	48·5	3 below.	46	−12	0	− 1	392 *	− 92	405 *	+174
	9. IRELAND NORTH	67	30	57·3	42·6	49·5	0 (average).	53	+ 3	0	− 4	418	+ 9	370	+ 27
	10. IRELAND, SOUTH	66	35	58·2	42·8	50·1	1 below.	57	0	0	− 3	500	− 29	336	+101
	— CHANNEL ISLANDS	59	38	55·2	44·5	49·5	2 below.	53	−10	0	0	399	−151	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 72.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	6	1 more.	79	− 1	14·9	+ 2·8	35	31	325	− 46	23	− 4
	1. SCOTLAND, EAST	3	1	4 less.	57	− 7	6·9	− 3·1	40	37	451	+ 40	32	+ 2
	2. ENGLAND, N.E.	3	1	4 less.	55	− 8	4·9	− 3·3	21	19	451 *	+110	32	+ 7
	3. ENGLAND, EAST	4	7	2 more.	50	−15	5·6	− 1·9	28	27	513	+ 75	36	+ 5
	4. MIDLAND COUNTIES	3	2	2 less.	47	−14	5·6	− 3·2	29	27	439	+ 49	31	+ 3
	5. ENGLAND, SOUTH	3	3	1 less.	49	−11	6·0	− 3·1	34	33	465	+ 53	33	+ 3
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	3	2	5 less.	63	− 9	12·7	− 3·5	36	34	446	+ 73	32	+ 5
	7. ENGLAND, N.W.	3	1	3 less.	51	−14	7·3	− 3·3	37	34	469	+103	33	+ 6
	8. ENGLAND, S.W.	4	2	3 less.	53	−16	7·4	− 7·0	35	34	580	+124	41	+ 8
	9. IRELAND, NORTH	2	2	3 less.	60	−18	9·1	− 2·3	41	39	457	+ 61	33	+ 5
	10. IRELAND, SOUTH	2	2	3 less.	53	−21	9·4	− 4·6	47	44	587	+138	41	+ 8
	— CHANNEL ISLANDS	4	3	2 less.	59	−17	6·6	− 4·8	49	48	656	+107	46	+ 7

General Remarks.

Weather continued cold and rather unsettled during the earlier part of the period, but subsequently the conditions improved, and fine, bright weather prevailed in nearly all parts of the Kingdom.

Temperature has been one degree above the mean in "Scotland, W.", but in the other districts it has varied from 1° to 3° below or just equalled its normal value. The highest of the maxima, which were recorded on the 8th, ranged from 60° to 67° in Scotland, 66° to 67° in Ireland, and from 67° to 73° in England. In the "Channel Islands", the highest reading was only 59°. The lowest of the minima, which were recorded on irregular dates, varied from 29° in "Scotland, N." and "Scotland, E." to 38° in "England, E." and the "Channel Islands", and 40° in "England, S." Several ground frosts occurred at stations inland.

Rainfall has been rather more than the mean in "Scotland, N." and "England, E.", but less in all other districts.

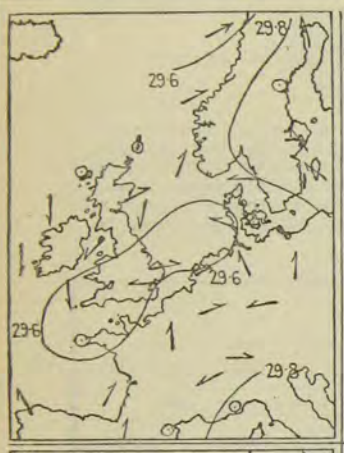
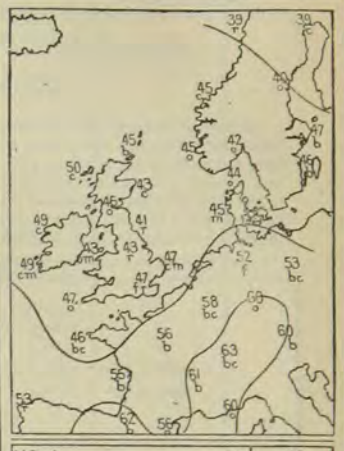
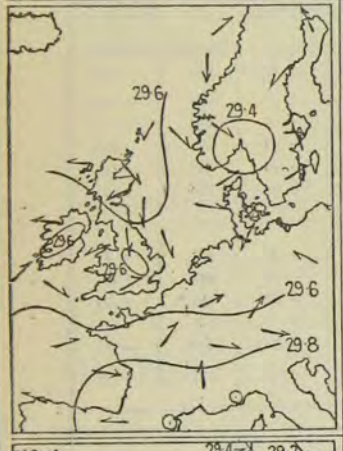
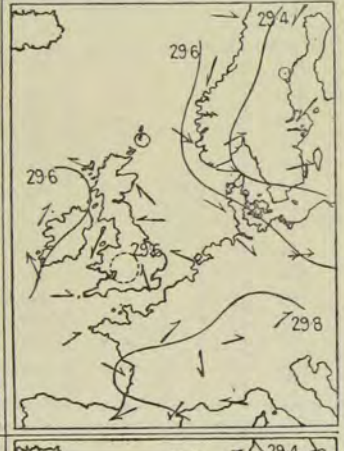
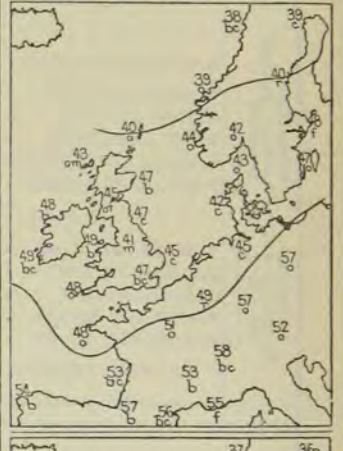
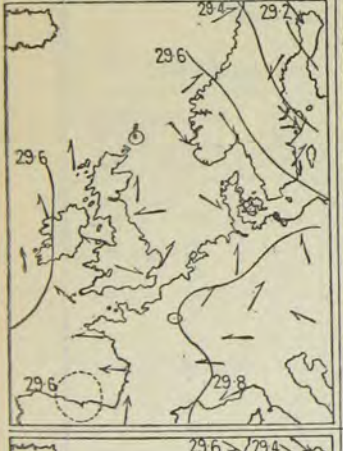
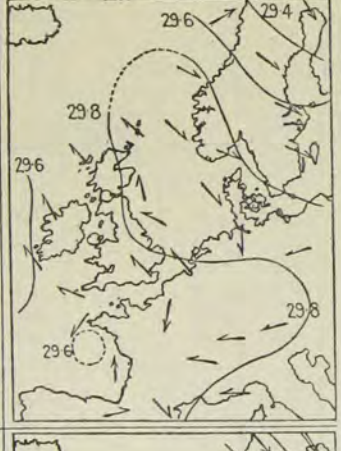
Bright sunshine has been less prevalent generally than it was last week, the percentage of the possible amount of duration ranging from 19 to 34 in England, from 31 to 37 in Scotland, and from 39 to 44 in Ireland; in the "Channel Islands" 48% was recorded.

Depressions observed.—During the greater part of this period shallow depressions were observed in different parts of our Islands and their neighbourhood, the most clearly defined disturbance being that which travelled slowly north-eastwards from Spain to the Netherlands during the 5th, 6th, and 7th. The winds experienced were consequently somewhat variable, but generally North-Easterly in the south and south-east, and Southerly in the extreme west. Towards the end of the period pressure rose briskly to the south-westward of our Islands, and an anticyclone was established over the Bay of Biscay and our south-west coasts, while far to the northward of Scotland depressions moved north-eastwards. Under these conditions the winds over the United Kingdom became moderate or light from the Westward or North-Westward.

* This value has been altered slightly owing to the receipt of some arrears of observations.

A 51292. 350.—5/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, May 3.** *Weather* rainy in the north and east of England and showery at some of our southern stations, but fair in most other localities. Thunderstorms occurring later over France and Central England. *Temperature* risen a little over England, Denmark, the Netherlands, and Germany, but fallen elsewhere; readings ranging from 52° at Jersey and 50° at Stornoway to 41° at Shields. *Wind* light or moderate from North or North-East over Ireland and the west and north of England, but variable in the south-east of England and South-Westerly at most of the French stations. Subsequently veering to North-West in the west of France. *Sea* moderate to smooth. *Barometer* rising in France and the south of England, but falling elsewhere. Pressure highest in Sweden, with a large but irregularly formed area of low readings over England, the Channel, and the southern parts of the North Sea. Fall taking place generally later.	
		**Wednesday, May 4.** *Weather* fine in France and also at some of our western and northern stations, but cloudy elsewhere, with showers in many places. Rain falling later in some parts of Ireland. *Temperature* fallen a little in France, but changed irregularly elsewhere; readings over our Islands ranging from 50° at Jersey to 41° at York and 40° at Sumburgh Head. *Wind* moderate to fresh from West or South-West over the southern parts of England and Germany, but light from North-East over the northern parts of our Islands, and strong from North or North-West in the west of Norway. *Sea* moderate to smooth. *Barometer* falling at all but the French stations. Pressnre highest (29·8 ins. and upwards) in the south of France and relatively high over the north of our Islands, with small shallow depressions over the Netherlands and south of Sweden. Rise taking place over our Islands later, but new fall setting in over Spain and the south of France.	
		**Thursday, May 5.** *Weather* fine in the northern parts of our Islands as well as in Denmark, the south of Norway, and the east of France, but dull elsewhere. Rain setting in later over the north-west of France. *Temperature* risen a little in most places; readings over our Islands ranging from 53° at Jersey to 42° in the Shetlands. *Wind* moderate from South or South-East in the west and north of our Islands, but variable in the south-east, moderate to strong from North-West in Scandinavia and Denmark, and fresh Easterly in the west of France. Subsequently shifting to the Eastward on our south and south-east coasts. *Sea* rather rough at Valencia, but slight or smooth elsewhere. *Barometer* falling in Spain, France, and the north of Scandinavia, but rising in all other localities. Pressure highest, 29·9 ins. and less, over South Germany, with a band of relatively high pressure over the North Sea, and a shallow depression off the north of Spain. Depression subsequently moving northwards, and barometer falling over France and the south of England.	
		Friday, May 6. *Weather* dull over England and the west and north of France, with rain at all the Channel stations, but fair or fine elsewhere. Rain subsequently spreading to our midland and eastern counties. *Temperature* changed little and irregularly; readings over our Islands ranging from 51° at Nairn, Parsonstown, Valencia, and Roche's Point, to 45° at Shields, Barrow-in-Furness, Yarmouth, and in London. *Wind* moderate South-Easterly or Southerly in Ireland and Scotland, but Northerly on the eastern shores of the North Sea, North-Easterly in the south of our Islands, and Westerly or South-Westerly in France. Subsequently veering to South-West in Ireland. *Sea* moderate to smooth. *Barometer* rising generally. Pressure highest in Spain, but relatively high over the North Sea and the adjacent coasts. Elongated depression lying over the Netherlands and the north of France. Depression subsequently moving north-eastwards, and barometer continuing to rise generally.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

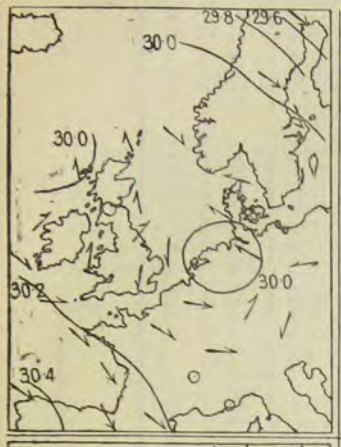
Weather

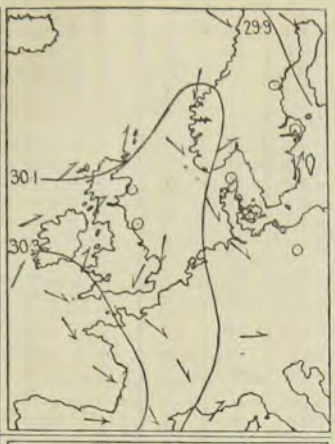
During the 24 hours succeeding 8 a.m. on the dates given.

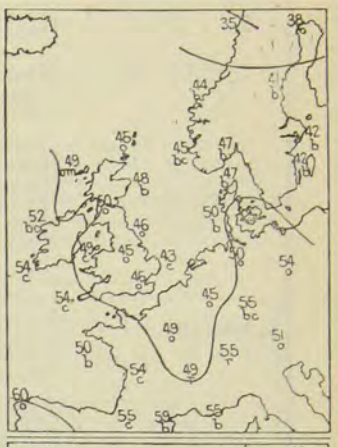
Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.







Saturday, May 7.

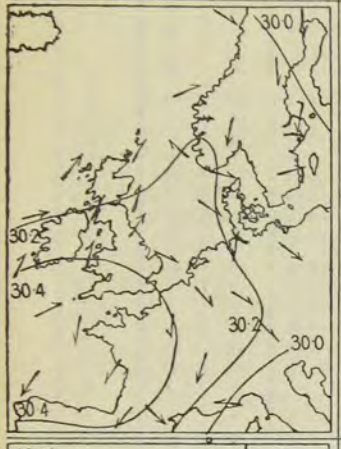
Weather dull in Great Britain, Germany, the Netherlands, and the east of France, with drizzling rain in a few places, but fair or fine elsewhere.

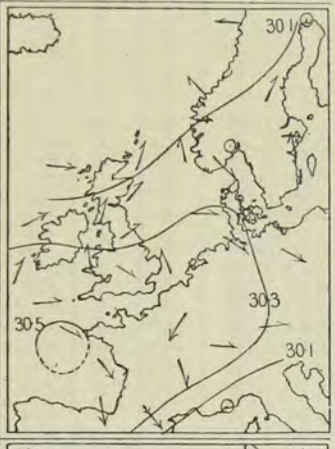
Temperature changed irregularly; readings over our Islands ranging from 54° at Donaghadee, Valencia, and Scilly to 43° at Yarmouth.

Wind light Southerly on our north and north-west coasts, but Westerly in the south, and Northerly in the south-east. Strong from North-West in the west of France and light from South-East in Denmark.

Sea moderate to smooth.

Barometer rising generally. Anticyclone lying over the Iberian peninsula and lowest pressures over the north of Sweden, but shallow disturbances found respectively off the north-west of Scotland and over the Netherlands. Anticyclone over Spain subsequently extending northwards to our south-west coasts, and barometer continuing to rise generally.





Sunday, May 8.

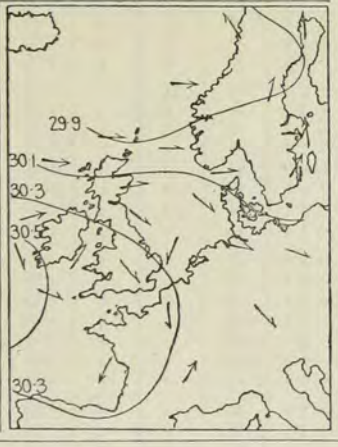
Weather dull on our extreme west and north-west coasts as well as over Germany and the east of France, but fine in most other localities. A little rain falling later in the extreme west and north.

Temperature risen several degrees at the English stations, but changed irregularly elsewhere; readings over our Islands ranging from 60° at Shields and 58° at Leith to 46° at Pembroke and Hurst Castle. Subsequently rising to 70° in London and at Cambridge, and 72° at Loughborough.

Wind moderate South-Westerly in the west and north of our Islands, but Northerly or North-Westerly on the eastern shores of the North Sea and North-Easterly at most of the French stations.

Sea rather rough at Stornoway, but moderate to smooth elsewhere.

Barometer rising at all but our extreme northern stations. Large anticyclone lying over the Bay of Biscay, France, and the south of our Islands, with a shallow depression off the north of Scotland, and a somewhat deeper disturbance over the Gulf of Genoa. Slight fall taking place in all parts of our Islands later.



Monday, May 9.

Weather rainy in the west of Norway and dull in the west and south-west of our Islands, but fair or fine elsewhere. Showers falling later in several parts of the United Kingdom.

Temperature fallen a few degrees over Scotland and the northern parts of Ireland and England, but risen elsewhere; readings over our Islands ranging from 56° at Cambridge to 47° at Sumburgh Head. Subsequently rising to 64° at Oxford and 67° at Cambridge and in London.

Wind moderate South-Westerly or Westerly over the United Kingdom, and Southerly in Sweden and Denmark, but North-Westerly in Germany and North-Easterly over the greater part of France. Subsequently blowing strongly from West in the extreme north and north-west.

Sea rather rough at Stornoway, but moderate to smooth elsewhere.

Barometer falling a little at all but the Irish and Scotch stations. Anticyclone still lying over the Bay of Biscay, France, and the south of our Islands, but depression found off the north-west of Norway. Depression subsequently moving south-eastwards over Scandinavia.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	54	35	49·6	38·0	43·5	− 1·7	27	11	5	0·35	−0·05	*	*
	Stornoway	56	38	53·1	42·0	47·2	+ 1·0	36	0	5	0·85	+0·25	50	45
	Wick	60	29	53·4	39·3	45·9	+ 0·2	39	8	4	0·26	−0·09	*	*
	Lairg	?	34	?	40·4	?	?	?	?	3	0·21	−0·29	*	*
	Glencarron	59	34	54·4	38·6	46·0	+ 0·5	42	10	6	1·40	?	19	17
	Fort Augustus	60	32	55·6	38·9	46·8	− 0·6	47	9	5	0·35	?	*	*
1. SCOTLAND, E.	Nairn	62	32	57·3	38·7	47·4	+ 0·4	52	9	4	0·24	−0·12	*	*
	Aberdeen	67	33	56·0	38·0	46·5	− 0·2	48	11	3	0·03	−0·42	60	55
	Braemar	58	29	53·6	34·7	43·6	− 0·1	42	20	2	0·05	−0·47	26	24
	Ochtertyre	63	33	58·4	39·7	48·5	+ 2·9	55	6	1	0·01	−0·52	*	*
	Leith	65	32	58·0	40·4	48·7	+ 0·1	54	4	0	—	−0·38	*	*
	Marchmont	63	31	55·0	37·9	45·9	− 0·5	45	11	5	0·23	−0·29	35	32
2. ENGLAND, N.E.	Alnwick Castle	64	32	52·9	41·0	46·6	− 0·7	36	3	1	0·03	−0·47	*	*
	Durham	68	30	54·9	38·7	46·3	− 1·5	44	9	2	0·06	−0·43	21	19
	Shields	68	34	54·9	41·0	47·5	− 0·3	43	3	3	0·11	−0·31	*	*
	Scarborough	69	41	54·6	42·7	48·3	− 0·3	44	0	3	0·12	−0·30	*	*
	York	69	38	56·0	41·6	48·4	− 1·2	46	1	2	0·10	−0·31	?	?
	Spurn Head	66	41	51·7	42·4	46·8	− 1·9	34	0	4	0·10	?	*	*
3. ENGLAND, E.	Hillington	69	37	57·3	41·6	49·0	− 1·2	51	1	?	0·42	0·00	29	27
	Yarmouth	61	40	51·9	42·0	46·7	− 4·5	33	0	4	1·25	+0·83	*	*
	Geldeston	67	38	56·8	41·4	48·6	− 1·5	49	2	4	0·59	+0·21	26	25
	Cambridge	70	39	60·3	41·7	50·4	− 1·4	60	1	3	0·94	+0·54	29	28
	Rothamsted	69	40	58·5	41·8	49·7	− 0·1	55	1	4	0·41	−0·07	*	*
	Ingatestone	67	40	58·2	42·2	49·7	− 2·7	54	0	3	0·31	−0·07	28	27
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)§	72	39	57·1	41·6	48·9	− 1·5	50	1	1	0·03	−0·39	21	20
	Loughborough	72	39	57·1	42·0	49·1	− 1·5	50	0	4	0·26	−0·18	*	*
	Leicester	71	41	57·5	42·5	49·6	− 0·8	53	0	3	0·27	−0·18	20	19
	Cheadle	69	38	54·4	40·4	47·0	− 1·9	42	4	3	0·09	−0·43	*	*
	Churchstoke	67	33	55·3	39·2	46·8	− 3·2	45	8	3	0·07	−0·35	34	32
	Hereford	73	38	59·6	42·0	50·3	− 0·6	58	0	2	0·08	−0·34	*	*
	Cirencester	67	35	58·0	40·4	48·7	− 1·6	54	4	3	0·38	−0·10	38	36
	Oxford	68	41	57·9	43·0	50·0	− 0·9	56	0	3	0·49	+0·07	30	26
5. ENGLAND, S.	London†	70	41	59·7	44·1	51·4	− 0·4	66	0	3	0·35	−0·05	22	21
	Strathfield Turgiss	70	40	60·7	43·7	51·7	+ 1·7	68	0	3	0·39	+0·02	*	*
	Dungeness	61	42	55·1	44·3	49·4	− 2·3	52	0	2	0·21	−0·19	*	*
	Hastings (St. Leonard's)	63	42	56·5	45·0	50·4	− 0·9	59	0	2	0·14	−0·29	47	45
	Southampton	69	42	60·5	44·8	52·2	+ 1·0	71	0	3	0·39	−0·06	34	33
	Hurst Castle	62	41	55·6	43·6	49·2	− 2·5	50	0	3	0·35	−0·05	*	*
	Stowell	65	40	57·3	43·2	49·8	− 0·8	55	0	5	0·34	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)‡	67	31	60·3	42·1	50·7	+ 2·8	61	0	6	0·43	−0·44	*	*
	Glasgow	61	38	55·4	42·6	48·6	+ 1·0	46	0	1	0·05	−0·47	29	27
	Ardrossan	58	39	55·7	45·0	49·0	+ 1·1	49	0	2	0·04	−0·47	*	*
	Glenlee	62	33	56·7	39·3	47·5	+ 0·5	50	8	4	0·21	?	*	*
	Douglas (Isle of Man)	59	35	53·9	41·2	47·2	− 1·2	40	2	1	0·01	−0·44	43	40
7. ENGLAND, N.W.	Newton Reigny (Penrith)	63	32	54·7	38·0	45·9	− 1·9	44	11	2	0·06	−0·36	37	34
	Barrow-in-Furness	57	36	53·4	42·0	47·4	− 2·6	38	0	3	0·11	−0·31	*	*
	Stonyhurst	62	32	54·1	39·6	46·4	− 3·0	41	7	1	0·11	−0·45	31	29
	Blackpool	60	31	54·3	40·0	46·7	− 3·8	41	6	3	0·15	−0·27	38	36
	Manchester	67	38	54·8	41·1	47·4	− 2·5	42	3	3	0·06	−0·44	*	*
	Liverpool Obsy (Bidston)	66	39	56·1	43·1	49·2	− 1·5	50	0	2	0·18	−0·20	*	*
	Llandudno	64	39	54·8	43·3	48·7	− 2·2	47	0	4	0·13	−0·26	40	38
	Holyhead	58	38	54·0	42·4	47·9	− 3·2	41	0	2	0·04	−0·37	*	*
8. ENGLAND, S.W.	Llandovery	64	31	58·3	38·9	48·0	− 3·4	55	9	4	0·27	−0·35	*	*
	Pembroke	52	38	49·9	42·4	45·9	− 5·0	27	0	3	0·08	−0·37	24	23
	Arlington (N. Devon)	60	36	55·0	39·6	46·8	− 3·4	44	7	4	0·20	−0·48	*	*
	Cullompton	68	38	60·4	42·7	51·0	− 0·4	63	0	3	0·26	−0·26	39	38
	Falmouth	61	37	55·0	42·9	48·6	− 2·6	46	0	4	0·17	−0·48	36	35
	Plymouth	67	39	58·8	44·5	51·2	− 1·0	64	0	3	0·27	−0·23	40	38
	Prawle Point	62	39	55·0	42·0	48·1	− 2·8	43	0	4	0·36	?	*	*
9. IRELAND, N.	Malin Head	58	41	55·4	44·7	49·7	+ 1·0	54	0	4	0·22	?	*	*
	Londonderry	67	36	63·2	43·0	52·5	+ 3·1	74	0	2	0·23	−0·31	*	*
	Mullaghmore	59	35	55·7	43·3	49·1	− 1·2	50	0	2	0·20	−0·34	*	*
	Belmullet	58	42	55·1	46·4	50·5	+ 0·7	60	0	3	0·59	?	*	*
	Markree Castle	58	32	55·8	39·5	47·2	− 2·8	47	7	4	0·23	−0·27	37	35
	Brookeborough	62	30	58·7	40·1	48·8	− 1·2	56	5	1	0·09	?	*	*
	Armagh	63	38	57·9	42·6	49·8	+ 0·1	55	0	2	0·06	−0·41	45	42
	Donaghadee	62	38	56·1	43·9	49·6	0·0	53	0	1	0·01	−0·47	*	*
	Edgeworthstown	62	35	57·9	39·9	48·4	− 2·2	54	6	2	0·21	−0·31	*	*
10. IRELAND, S.	Dublin	66	37	60·0	43·3	51·2	+ 0·9	64	0	1	0·02	−0·43	57	54
	Parsonstown	63	37	58·9	41·7	49·8	− 0·7	56	1	4	0·19	−0·31	36	34
	Kilkenny	65	35	60·6	39·1	49·2	− 1·3	63	8	0	—	−0·45	*	*
	Waterford	65	35	59·9	39·7	49·2	− 2·0	60	6	0	—	−0·57	*	*
	Roche's Point	60	40	56·1	45·4	50·4	− 0·8	59	0	2	0·21	−0·52	*	*
	Valencia	58	41	55·9	46·1	50·7	0·0	61	0	3	0·58	−0·12	47	45
	Killarney	60	35	57·4	43·1	49·8	− 1·1	55	0	2	0·13	?	*	*
	Foynes	61	41	57·1	44·1	50·2	− 0·1	57	0	5	0·34	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	58	43	54·4	45·7	49·8	− 2·0	55	0	2	0·02	−0·42	*	*
	Jersey (Noirmont)	59	38	55·9	43·3	49·2	− 2·8	50	0	5	0·52	+0·12	49	48

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

‡ The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

§ The Bright Sunshine values entered to Bawtry are recorded at Worksop. At Glencarron and Ingatestone the Bright Sunshine values are obtained by Jordan's Photographic Recorder.

WEEKLY WEATHER REPORT.

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VOL. IV. No. 19.] *Second Series.* WEEK ENDING MONDAY, 16TH MAY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 76.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	66	33	55·2	41·4	47·8	1 above.	43	+ 7	2	− 6	294	+ 54	534	+ 35
	1. SCOTLAND, EAST	70	34	58·6	42·0	49·8	3 above.	55	+ 5	0	− 6	410	+ 69	574	+ 37
	2. ENGLAND, N.E.	63	33	54·6	42·5	48·2	1 below.	43	− 8	0	− 5	342	− 3	562	+ 82
	3. ENGLAND, EAST	67	32	55·5	41·3	48·0	4 below.	45	−19	2	− 3	362	− 97	667	+164
	4. MIDLAND COUNTIES†	66	32	57·5	42·3	49·4	2 below.	52	−14	0	− 6	407	− 83	666	+166
	5. ENGLAND, SOUTH	69	31	59·3	42·5	50·4	2 below.	59	−11	0	− 2	436	− 84	524	+152
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	66	34	58·3	44·4	51·0	2 above.	63	+10	0	− 4	382	− 1	440	+ 44
	7. ENGLAND, N.W.	63	30	54·5	43·8	48·8	2 below.	48	− 9	0	− 3	328 *	− 65	499	+117
	8. ENGLAND, S.W.	69	30	59·5	44·3	51·4	0 (average).	66	+ 2	0	− 1	458	− 82	405	+172
	9. IRELAND NORTH	67	35	57·3	44·9	50·7	0 (average).	61	+ 6	0	− 3	479	+ 22	370	+ 22
	10. IRELAND, SOUTH	67	34	60·8	45·5	52·7	1 above.	75	+12	0	− 2	575	− 10	336	+ 98
	— CHANNEL ISLANDS	62	43	55·4	46·7	50·7	2 below.	61	− 8	0	0	460	−150	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 76.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4. 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	3	2	3 less.	82	− 3	15·1	+ 2·5	21	18	346	− 64	23	− 5
	1. SCOTLAND, EAST	3	3	2 less.	60	− 7	7·2	− 3·3	28	25	479	+ 21	32	+ 1
	2. ENGLAND, N.E.	3	1	3 less.	58	− 9	5·0	− 3·7	24	22	475	+ 90	31	+ 5
	3. ENGLAND, EAST	3	3	2 less.	53	−16	5·9	− 2·0	46	43	559	+ 73	37	+ 5
	4. MIDLAND COUNTIES†	2	1	4 less.	49	−16	5·7	− 3·5	46	42	485	+ 50	32	+ 3
	5. ENGLAND, SOUTH	2	2	3 less.	51	−13	6·2	− 3·3	54	51	519	+ 63	34	+ 4
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	2	4	1 less.	65	−10	13·1	− 3·6	37	34	483	+ 65	32	+ 4
	7. ENGLAND, N.W.	2	3	2 less.	53	−15	7·6	− 3·4	30	27	499	+ 86	33	+ 5
	8. ENGLAND, S.W.	0	less than ½	6 less.	53	−20	7·4	− 7·6	61	58	641	+136	42	+ 8
	9. IRELAND, NORTH	2	3	3 less.	62	−20	9·4	− 2·5	34	31	491	+ 46	32	+ 2
	10. IRELAND, SOUTH	0	–	5 less.	53	−25	9·4	− 5·1	38	35	625	+124	40	+ 6
	— CHANNEL ISLANDS	1	1	3 less.	60	−19	6·7	− 5·1	60	57	716	+105	46	+ 6

General Remarks.

Weather has been generally fair or fine in all parts of the Kingdom. Although a good deal of cloud prevailed at times, the rainfall was very slight.

Temperature has been from 1° to 3° above the mean in Scotland, and 1° above or about equal to it in Ireland and also in the south-west of England, but in the other English districts it has continued below its normal value, the deficit varying between 1° and 4°. The highest of the maxima, which were recorded on irregular dates, ranged from 70° in "Scotland, E." and 69° in "England, S." and "England, S.W.", to 62° in the "Channel Islands". The lowest of the minima, which were recorded in most places during the latter part of the period, varied from 30° in "England, N.W." and "England, S.W." and 31° in "England, S." to 35° in "Ireland, N." and 43° in the "Channel Islands".

Rainfall has been less than the mean in all districts; in the south of Ireland and the south-west of England rain has been almost entirely absent.

Bright sunshine shows an increase on that recorded last week in most of the "Wheat-producing Districts", but a decrease in nearly all the "Grazing Districts". The percentage of the possible amount of duration ranged from 18 in "Scotland, N." and 22 in "England, N.E.", to 51 in "England, S.", 57 in the "Channel Islands", and 58 in "England, S.W."

Depressions observed.—During the early part of the period an anticyclone lay over the Bay of Biscay and our south-west coasts, while depressions travelled eastwards far to the northward of our Islands. As the week progressed, however, the high pressure area moved northwards and lay over the western parts of the United Kingdom, and depressions appeared in the eastern and south-eastern parts of our area. Under these conditions light North-Westerly winds prevailed on our coasts during the earlier days of the period, while subsequently moderate to fresh Northerly to North-Easterly winds became general.

* This value has been altered slightly owing to the receipt of further information.
† The values in this district are liable to alteration owing to the non-arrival of the Return from Leicester.

A 51342. 350.—5/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

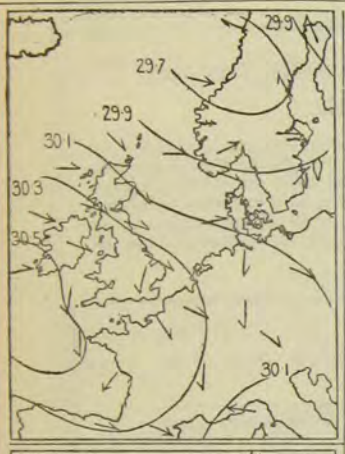
Weather

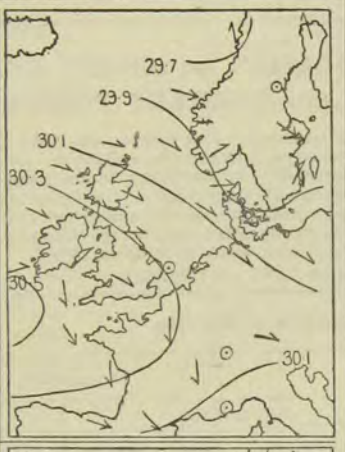
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, May 10.

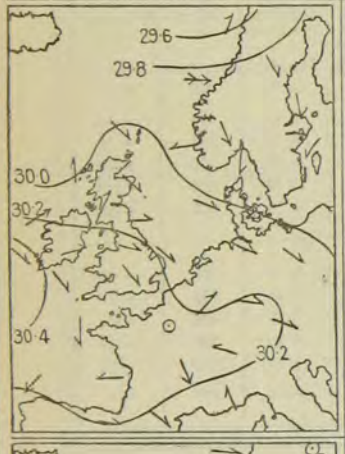
Weather dull and unsettled, with local rains on our extreme north-west coasts and also in Sweden, but fair or fine elsewhere. Showers falling later at several of our northern and eastern stations.

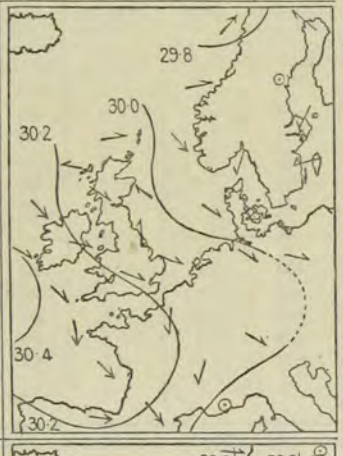
Temperature risen a few degrees in France, but fallen elsewhere; readings over our Islands ranging from 55° at several of the English stations to 46° at Sumburgh Head. Subsequently rising to 64° at Loughborough and Oxford, 65° in London, and 67° Cambridge.

Wind moderate to strong from the Westward over the northern parts of our Islands, and also in Norway and Denmark, but light Northerly on our southern coasts, and moderate to fresh from North-East in France. Subsequently backing to the Westward at our southern stations.

Sea moderate to smooth.

Barometer rising in our Islands and France, but falling elsewhere. Anticyclone lying off our extreme south-west coasts, and large shallow depression over the north of Scandinavia. Depression subsequently filling up, and slight fall of barometer taking place over the United Kingdom.





Wednesday, May 11.

Weather fine on our east and south-west coasts, as well as in France and the south of Scandanavia, but cloudy elsewhere, with rain in the north of Ireland and west of Scotland. Rain extending later to our eastern and central stations.

Temperature fallen a little over England, but changed irregularly elsewhere; readings over our Islands ranging from 56° at Prawle Point to 46° at Sumburgh Head and 45° at Shields.

Wind moderate Southerly or South-Westerly in the west of Scotland and north of Scandinavia, but Westerly in Ireland and England, and North-Easterly over the Bay of Biscay and Portugal. Subsequently veering to North-West on our western and southern coasts.

Sea rather rough at Christiansund and Corunna, but moderate to smooth elsewhere.

Barometer falling at all but the Scandinavian stations. Pressure highest (30·4 ins. and upwards) off the south-west of Ireland, with a large depression off the north-west of Norway, and smaller disturbances over the Baltic and west of Scotland. Scotch disturbance subsequently moving south-eastwards to the North Sea.

Thursday, May 12.

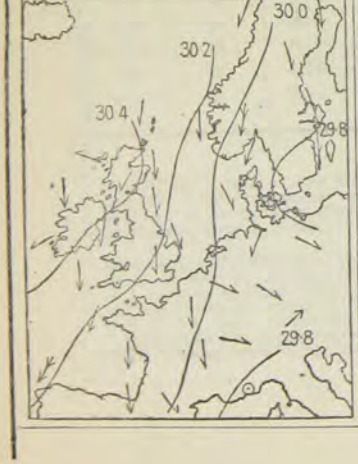
Weather cloudy generally, with rain on our extreme north-west coasts as well as at Christiansund and Brussels. Showers falling later in many parts of the Kingdom.

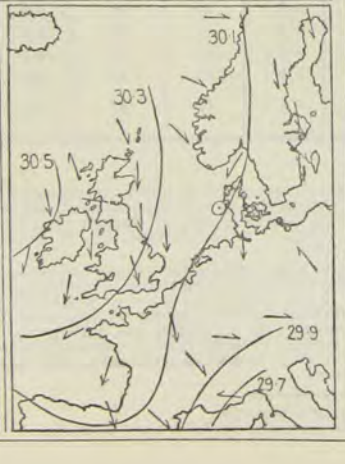
Temperature changed little and irregularly; readings over our Islands ranging from 59° at Hurst Castle to 44° at Sumburgh Head.

Wind varying between North-West and North, light to fresh in force generally. Subsequently veering to North-East at some of our northern stations.

Sea moderate to smooth.

Barometer rising at all the more northern stations, but falling elsewhere. Pressure highest (30·4 ins. and upwards) off the west of Ireland, with shallow depressions lying respectively over the Baltic and the Netherlands. Anticyclone in west subsequently extending northwards.





Friday, May 13.

Weather rainy at some of the German stations, and showery on our east coasts, but fair or fine elsewhere.

Temperature fallen at all but the Scandinavian stations; readings over our Islands ranging from 54° at Valencia to 42° at Barrow-in-Furness and Dungeness and 40° at Sumburgh Head. Maxima below 55° in many parts of Great Britain.

Wind moderate North-Easterly in Ireland and the west and north of Scotland, but fresh or strong from the northward in nearly all other parts of Western Europe. Subsequently backing to North-West or West in Norway.

Sea rather rough on our east coasts as well as at Scilly, but moderate to smooth elsewhere.

Barometer rising at all but the French and German stations. Pressure highest 30·4 ins. and upwards over Ireland and Scotland, with a depression over the southern parts of the Baltic. Depression subsequently moving southwards, and barometer rising generally.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

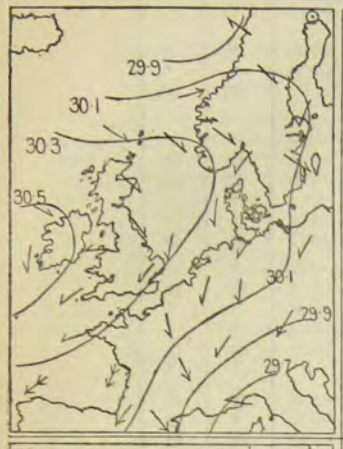
Weather

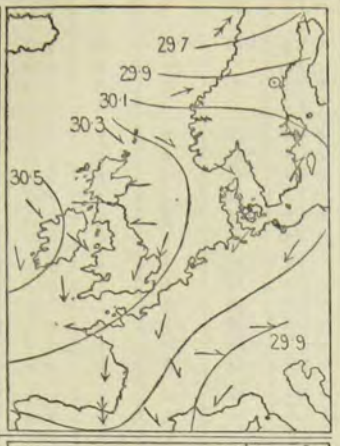
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Saturday, May 14.

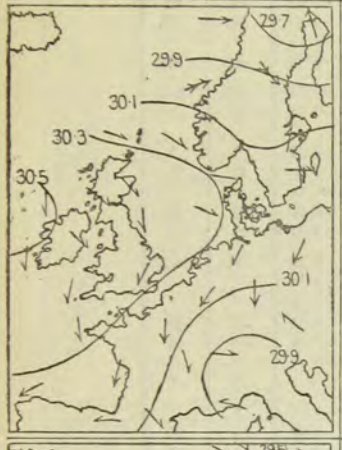
Weather dull in Scotland, the north of Ireland, and the west of Norway, but fair or fine elsewhere.

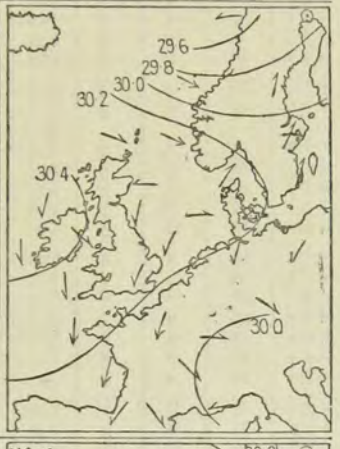
Temperature fallen several degrees in France, but risen a little in our Islands and Denmark; readings over the United Kingdom ranging from 52° at Valencia to 43° at Leith.

Wind moderate North-Westerly in the north of our Islands and Westerly in Norway, but fresh from North and North-East at our southern and the French stations.

Sea rather rough off the east and south-east of England, but moderate to smooth elsewhere.

Barometer rising at all but the Scotch and Norwegian stations. Anticyclone (readings 30·5 ins. and upwards) lying over Ireland, with a large depression off the north-west of Norway, and a small disturbance over the Gulf of Genoa. No important change later.





Sunday, May 15.

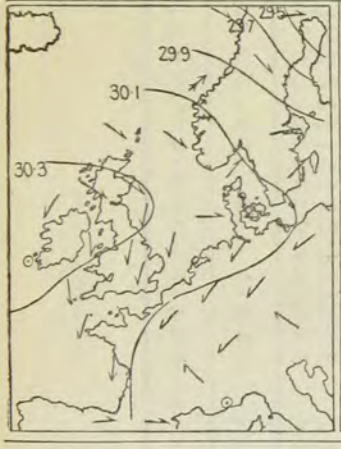
Weather fine in Germany, the Netherlands, and the south of our Islands, but cloudy elsewhere, with rain at Wiesbaden and Lyons and thunder at Nice.

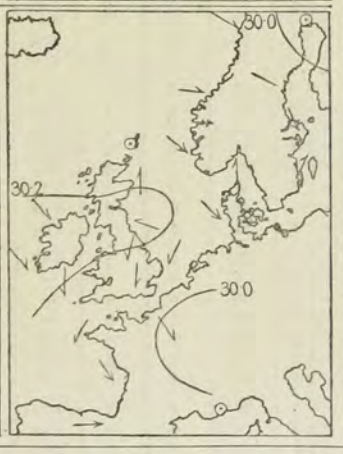
Temperature risen in most places; readings over our Islands ranging from 58° at Wick, Aberdeen, and Leith to 47° at Spurn Head, Loughborough, Oxford, and in London.

Wind strong to a gale from the Westward in Scandinavia, but moderate from North-West on our northern coasts, and fresh or strong from North or North-East over Germany, France, and the south of our Islands.

Sea moderate to smooth on nearly all coasts.

Barometer falling generally. Anticyclone lying over the greater part of our Islands, with a depression over the north of Sweden and another over Switzerland. Fall continuing all day, but no important change taking place in distribution of pressure.





Monday, May 16.

Weather fine in Sweden, Scotland, and Germany, but cloudy elsewhere, with fog in the south of Norway and rain at some of the French stations.

Temperature risen a little generally; readings over our Islands ranging from 60° at Aberdeen to 47° at Dungeness. Subsequently rising to 64° at Leith and 68° at Nairn.

Wind light from West or North-West in Scotland, and strong from the same quarter in Scandinavia, but North-Easterly or Northerly at our southern and the French stations. Subsequently backing to south in Scotland.

Sea moderate to smooth.

Barometer falling at all but the southern French stations. Anticyclone lying over the greater part of our Islands, with a depression over the north of Sweden, and a large shallow area of low pressure over France and Germany. Fall continuing all day, and anticyclone gradually dispersing.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	54	36	50·1	40·1	44·8	− 1·1	28	5	4	0·36	−0·04	*	*
	Stornoway													
	Wick	63	36	56·9	40·9	48·4	+ 1·7	49	3	2	0·08	−0·28	*	*
	Lairg ≈	?	34	?	41·5	?	?	?	?	3	0·06	−0·46	*	*
	Glencarron ≈	64	33	55·4	41·3	47·9	+ 1·6	44	2	3	0·24	?	21‡	18‡
	Fort Augustus ≈	66	37	58·5	42·2	49·9	+ 1·7	55	0	3	0·11	?	*	*
1. SCOTLAND, E.	Nairn	68	36	59·0	41·9	49·9	+ 1·9	56	0	1	0·04	−0·35	*	*
	Aberdeen	65	39	58·0	42·7	49·9	+ 2·3	55	0	3	0·53	+0·11	30	27
	Braemar ≈	63	34	55·4	39·7	47·1	+ 2·3	45	6	4	0·18	−0·32	28‡	25‡
	Ochtertyre ≈	70	35	63·3	42·3	52·2	+ 4·4	71	0	2	0·03	−0·51	*	*
	Leith	65	38	59·3	44·0	51·2	+ 2·8	64	0	3	0·33	−0·04	*	*
	Marchmont ≈	65	35	56·4	41·6	48·6	+ 1·4	48	1	4	0·25	−0·27	26	23
2. ENGLAND, N.E.	Alnwick Castle	59	37	54·1	43·1	48·3	0·0	44	0	3	0·11	−0·38	*	*
	Durham	61	33	56·4	41·5	48·5	− 0·1	48	1	3	0·18	−0·30	25	23
	Shields	59	36	54·7	42·1	48·0	− 0·7	42	0	1	0·04	−0·36	*	*
	Scarborough ≈	60	39	51·8	43·0	47·1	− 2·3	36	0	4	0·13	−0·29	*	*
	York	63	35	58·7	42·6	50·2	− 0·7	57	0	3	0·19	−0·21	23	21
	Spurn Head	57	38	51·7	42·9	47·0	− 2·8	35	0	3	0·10	?	*	*
3. ENGLAND, E.	Hillington ≈	62	35	55·8	40·4	47·6	− 2·8	46	4	3	0·30	−0·11	51	47
	Yarmouth	55	39	51·4	42·6	46·7	− 5·0	33	0	4	0·20	−0·21	*	*
	Geldeston	58	38	53·2	41·5	47·0	− 3·9	37	1	3	0·22	−0·17	42	39
	Cambridge	67	32	59·1	40·9	49·5	− 3·1	57	3	2	0·35	−0·05	44	41
	Rothamsted	63	35	56·7	41·2	48·5	− 2·6	49	2	4	0·18	−0·29	*	*
	Ingatestone	63	35	56·7	41·1	48·4	− 4·5	49	3	3	0·28	−0·11	46‡	43‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	62	34	58·3	43·7	50·6	− 0·3	60	0	3	0·07	−0·35	34‡	31‡
	Loughborough	64	36	58·3	43·0	50·2	− 1·2	57	0	2	0·15	−0·29	*	*
	Leicester										64·0			
	Cheadle ≈	59	32	54·2	40·9	47·2	− 2·8	41	3	3	0·25	−0·26	*	*
	Churchstoke ≈	64	32	56·1	40·2	47·7	− 2·9	47	5	1	0·01	−0·40	43	39
	Hereford ≈	66	36	59·6	43·7	51·2	− 0·4	64	0	1	0·01	−0·41	*	*
	Cirencester	64	?	58·1	?	?	?	?	?	1	0·03	−0·43	58	54
	Oxford	64	35	57·6	42·1	49·4	− 2·2	52	0	2	0·09	−0·33	48	44
5. ENGLAND, S.	London	65	38	59·0	43·1	50·6	− 2·2	60	0	3	0·06	−0·33	45‡	46‡
	Strathfield Turgiss ≈	68	31	61·0	40·4	50·1	− 0·8	63	4	3	0·09	−0·26	*	*
	Dungeness	62	36	56·9	42·1	49·1	− 3·4	50	0	3	0·44	+0·04	*	*
	Hastings (St. Leonard's)	62	39	56·7	43·9	49·9	− 2·3	55	0	4	0·42	0·00	52	49
	Southampton	69	37	62·7	43·2	52·4	+ 0·3	73	0	1	0·01	−0·44	62	58
	Hurst Castle	65	39	60·6	42·7	51·1	− 1·5	64	0	1	0·01	−0·38	*	*
	Stowell ≈	62	36	58·0	42·2	49·6	− 1·8	53	0	0	—	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	66	40	59·5	44·9	51·8	+ 3·1	69	0	3	0·67†	−0·21	*	*
	Glasgow	66	39	59·9	44·6	51·8	+ 3·3	69	0	2	0·52	0·00	38	34
	Ardrossan	62	38	56·9	45·1	50·7	+ 2·0	61	0	2	0·26	−0·24	*	*
	Glenlee ≈	66	34	58·9	43·3	50·6	+ 2·5	60	0	3	0·15	?	*	*
	Douglas (Isle of Man)	63	38	56·4	44·3	50·0	+ 1·2	56	0	2	0·40	−0·02	36	33
7. ENGLAND, N.W.	Newton Reigny (Penrith)	63	30	55·3	41·1	47·8	− 0·6	44	3	2	0·19	−0·22	19	17
	Barrow-in-Furness	59	39	53·9	44·7	49·0	− 1·7	49	0	2	0·33	−0·09	*	*
	Stonyhurst	62	36	55·2	42·8	48·6	− 1·8	46	0	2	0·30	−0·27	39	35
	Blackpool ≈	61	34	55·1	43·1	48·7	− 3·0	47	0	2	0·30	−0·12	34	31
	Manchester	62	35	55·3	43·2	48·9	− 2·3	48	0	3	0·21	−0·29	*	*
	Liverpool Obsy (Bidston)	58	39	54·1	44·4	49·0	− 2·7	49	0	2	0·16	−0·22	*	*
	Llandudno ≈	58	40	53·3	45·3	49·0	− 2·8	49	0	3	0·34	−0·06	28	26
	Holyhead	58	44	53·9	45·6	49·5	− 2·2	53	0	1	0·30	−0·12	*	*
8. ENGLAND, S.W.	Llandovery	66	30	61·6	40·7	50·5	− 1·4	65	4	1	0·13	−0·48	*	*
	Pembroke	59	40	54·4	45·3	49·6	− 1·8	53	0	0	—	−0·45	46	43
	Arlington (N. Devon)	61	36	56·9	42·7	49·4	− 1·6	52	0	0	—	−0·67	*	*
	Cullompton ≈	66	37	61·2	43·1	51·6	− 0·7	67	0	0	—	−0·57	63	59
	Falmouth	60	39	57·1	44·9	50·6	− 1·2	60	0	0	—	−0·63	66	62
	Plymouth	66	41	64·0	46·3	54·6	+ 1·4	88	0	0	—	−0·47	70	66
	Prawle Point	69	41	61·0	47·3	53·7	+ 2·3	82	0	0	—	?	*	*
9. IRELAND, N.	Malin Head	57	45	52·4	46·6	49·3	+ 0·1	51	0	3	0·55	?	*	*
	Londonderry	67	42	61·4	44·8	52·6	+ 2·6	74	0	2	0·53	0·00	*	*
	Mullaghmore	61	43	56·0	46·7	51·1	− 0·1	64	0	2	0·06	−0·50	*	*
	Belmullet	63	43	55·9	47·9	51·7	+ 1·1	68	0	2	0·02	?	*	*
	Markree Castle	62	39	56·6	43·4	49·6	− 1·4	53	0	2	0·43	−0·04	33	30
	Brookeborough	64	35	57·5	42·9	49·8	− 1·2	55	0	1	0·10	?	*	*
	Armagh	63	37	59·6	43·7	51·2	+ 0·6	64	0	2	0·05	−0·40	34	31
	Donaghadee	60	43	56·0	45·6	50·5	+ 0·3	66	0	2	0·50	+0·02	*	*
	Edgeworthstown	63	36	60·1	42·4	50·7	+ 0·5	61	0	0	—	−0·32	*	*
10. IRELAND, S.	Dublin	65	40	60·2	46·8	53·1	+ 1·9	78	0	0	—	−0·42	35	32
	Parsonstown	63	38	60·9	44·0	51·9	+ 0·5	69	0	0	—	−0·50	32	29
	Kilkenny	67	36	63·9	43·4	53·0	+ 1·5	77	0	0	—	−0·42	*	*
	Waterford	66	34	62·2	44·1	52·6	+ 0·4	74	0	0	—	−0·52	*	*
	Roche's Point	61	41	58·7	46·7	52·3	+ 0·1	72	0	0	—	−0·70	*	*
	Valencia	63	40	60·1	47·7	53·5	+ 1·9	81	0	0	—	−0·65	48	44
	Killarney	63	34	60·5	44·1	51·8	+ 0·3	69	0	0	—	?	*	*
	Foynes	65	43	59·9	47·2	53·2	+ 2·1	78	0	1	0·01	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	57	44	53·9	47·4	50·2	− 2·5	57	0	0	—	−0·37	*	*
	Jersey (Noirmont)	62	43	56·9	46·0	51·1	− 2·0	64	0	2	0·11	−0·28	60	57

Stations marked ≈ are in connection with the Royal Meteorological Society, and those marked ≈ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop. At Glencarron, Ingatestone, and Braemar the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

NOTE.—The observations at Stornoway are temporarily interrupted.

(OFFICIAL COPY.)

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, 6, NORTH BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. IV. No. 20.] *Second Series.* WEEK ENDING MONDAY, 23RD MAY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 80.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	62	32	50·1	37·3	43·3	4 below.	29	−11	13	+ 6	323	+ 45	547	+ 42
	1. SCOTLAND, EAST	68	28	55·9	38·5	46·7	3 below.	48	− 8	10	+ 5	458	+ 67	584	+ 42
	2. ENGLAND, N.E.	66	33	53·8	41·2	47·1	3 below.	39	−18	2	− 2	381	− 18	564	+ 82
	3. ENGLAND, EAST	60	30	55·2	39·3	46·4	6 below.	42	−30	8	+ 4	404	−124	675	+169
	4. MIDLAND COUNTIES	71	33	55·8	40·7	47·8	5 below.	46	−27	4	0	453	−107	670	+167
	5. ENGLAND, SOUTH	63	35	55·6	42·0	48·4	5 below.	45	−33	0	− 1	481	−116	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	65	32	53·7	40·1	46·5	3 below.	39	−20	5	+ 2	421	− 18	445	+ 47
	7. ENGLAND, N.W.	64	31	53·2	41·4	46·9	5 below.	37	−27	2	0	365	− 90	501	+118
	8. ENGLAND, S.W.	66	33	55·3	43·4	48·9	4 below.	48	−23	0	− 1	506	−104	405	+172
	9. IRELAND NORTH	66	34	53·5	41·1	46·9	5 below.	38	−23	3	+ 1	517	+ 1	373	+ 24
	10. IRELAND, SOUTH	66	36	55·8	43·0	49·0	4 below.	49	−20	0	− 1	624	− 30	336	+ 97
	— CHANNEL ISLANDS	57	41	54·5	46·3	50·2	4 below.	57	−18	0	0	517	−168	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 80.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	9	4 more.	87	− 2	16·0	+ 3·0	14	12	360	− 97	22	− 7
	1. SCOTLAND, EAST	5	8	4 more.	65	− 6	8·0	− 3·0	41	36	520	+ 13	32	0
	2. ENGLAND, N.E.	5	9	5 more.	63	− 7	5·9	− 3·2	29	26	504	+ 63	31	+ 3
	3. ENGLAND, EAST	5	7	3 more.	58	−14	6·6	− 1·7	21	19	580	+ 33	36	+ 2
	4. MIDLAND COUNTIES	6	7	2 more.	55	−13	6·4	− 3·3	32	29	514 *	+ 23	32	+ 2
	5. ENGLAND, SOUTH	6	6	2 more.	57	− 9	6·8	− 3·1	33	30	552	+ 42	34	+ 2
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	5	13	8 more.	70	− 9	14·4	− 2·9	39	35	522	+ 53	32	+ 3
	7. ENGLAND, N.W.	5	13	8 more.	58	−14	8·9	− 2·6	37	33	536	+ 67	33	+ 4
	8. ENGLAND, S.W.	6	8	2 more.	59	−16	8·2	− 7·3	45	42	686	+122	42	+ 7
	9. IRELAND, NORTH	6	14	8 more.	68	−18	10·8	− 1·6	28	25	519	+ 23	32	+ 1
	10. IRELAND, SOUTH	6	8	3 more.	59	−23	10·2	− 4·8	35	32	660	+102	40	+ 5
	— CHANNEL ISLANDS	6	5	1 more.	66	−16	7·2	− 4·9	54	50	770	+ 93	47	+ 5

General Remarks.

Weather has been in a very changeable and unseasonable condition in all parts of the Kingdom. Heavy squalls of cold rain, hail, or sleet have been very prevalent; at several of our more southern stations they were accompanied by thunder and lightning.

Temperature has been considerably below the mean in all districts, the deficit ranging from 3° in the east and west of Scotland and the north-east of England, to as much as 6° in "England, E." The highest of the maxima, which were generally recorded either on the 17th or 23rd, varied from 57° in the "Channel Islands" to 68° in "Scotland, E." and 71° in the "Midland Counties". On most days the maxima were much lower than these readings; at Cambridge during a thunderstorm on Saturday the temperature at 2 P.M. fell to 37°. The lowest of the minima, which were registered towards the end of the period, varied from 28° in "Scotland, E." to 36° in "Ireland, S." and 41° in the "Channel Islands". Some sharp ground frosts were experienced at most of the inland stations.

Rainfall has been more than the mean in all districts, the excess in the west and north-west being rather large.

Bright sunshine has been less prevalent generally than it was last week, the percentage of the possible amount of duration ranging from 12 in "Scotland, N." to 36 in "Scotland, E.", and to 50 in the "Channel Islands".

Depressions observed.—During the earlier part of the period two shallow areas of low pressure were observed, one off the north-west of Scotland, while the centre of the other travelled slowly northwards and north-westwards from North Germany to the south of Norway. The winds in our Islands during this time were moderate from between West and South-West. During the night of the 19th—20th, however, a well defined and deep depression passed from west to east over the northern parts of Ireland and England, causing gales at nearly all our stations, from west or south-west in the south, and from the north-westward on all our more western coasts. In the Irish Sea the north-westerly gale was unusually severe. During the 20th the centre of the disturbance travelled north-north-eastwards to the northern parts of the North Sea, and subsequently in a north-westerly direction to the northward of Scotland. As the disturbance disappeared several small subsidiaries passed over the United Kingdom, causing the squalls and thunderstorms noticed above. At the end of the period a depression, which had advanced from the eastward, lay over Denmark.

* These values have been altered slightly owing to the receipt of some arrears of observations.

A 81378. 350.—5/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

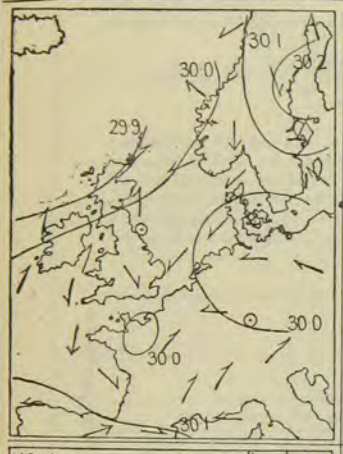
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, May 17.

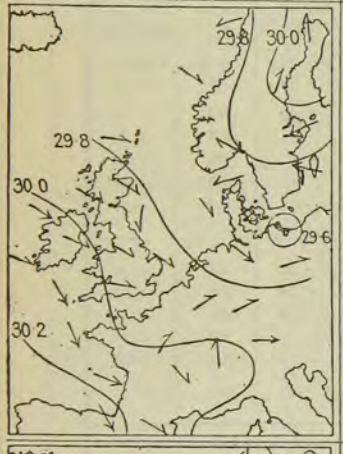
Weather dull in France, Germany, and the eastern parts of Great Britain, but fine elsewhere. Rain setting in later over Ireland and Scotland, and heavy rain falling in Germany.

Temperature fallen a little in our Islands and also in Sweden, but risen elsewhere; readings over the United Kingdom ranging from 63° at Leith and 60° at Aberdeen to 47° in the Shetlands and 46° at Yarmouth.

Wind moderate from the Southward in Scotland and the north of Ireland, but light from North-East in England, from North in the west of France, and from South-West in the east of that country. Subsequently veering to North-West on our western coasts.

Sea moderate to smooth.

Barometer rising in Sweden and the south of France, but falling elsewhere. Pressure highest over the Gulf of Bothnia, and relatively high in Spain, with large but shallow areas of low readings over North Germany and our extreme north-west coasts. Fall extending to Sweden and the south of France later.



Wednesday, May 18.

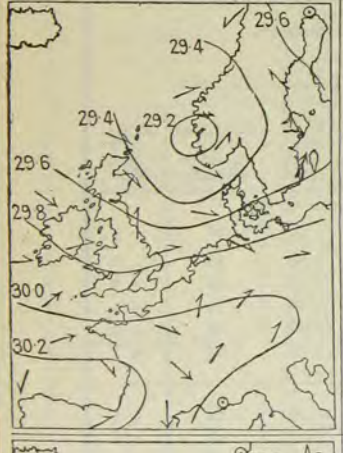
Weather dull and rainy over Germany, the Netherlands, the south-east of England, and the north of France, but fair or fine elsewhere. Rain falling in Ireland later.

Temperature risen a little in Scandinavia and France, but fallen elsewhere; readings over our Islands ranging from 54° at Valencia to 47° at Shields.

Wind moderate from West or North-West in our Islands, but South-Westerly in the Netherlands, and Easterly in the south of Scandinavia. Subsequently backing to South-West on our western coasts, and to South in the east of Scotland.

Sea rather rough at Brest, but moderate to smooth elsewhere.

Barometer rising in France, Spain, and the west of our Islands, but falling elsewhere. Pressure highest (30·2 ins. and upwards) over Spain, and relatively high in Sweden, with a depression over the extreme north of Germany. Depression subsequently moving northwards, and new but shallow disturbance appearing over Scotland.



Thursday, May 19.

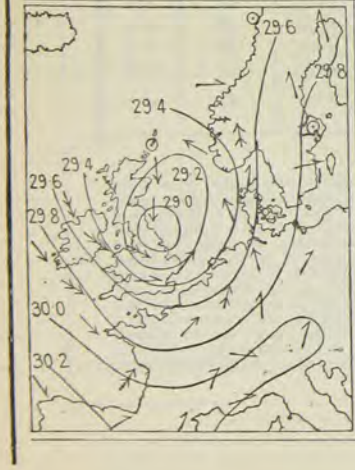
Weather cloudy at all but the southern French stations, with rain in many parts of our Islands and Scandinavia. Sky subsequently clearing in the east of Scotland.

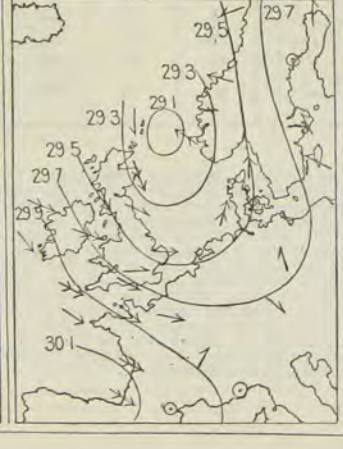
Temperature fallen generally; readings over our Islands ranging from 58° at Valencia and Scilly to 41° at Nairn.

Wind moderate North-Westerly in Scotland, but Westerly or South-Westerly over Ireland, England, France, and Germany, and South-Easterly in Sweden. Subsequently increasing to moderate gale from South-West on our south-west coasts.

Sea rather rough at Scilly, but moderate to smooth elsewhere.

Barometer falling at all but the French and German stations Pressure highest in an anticyclone lying off the north-west of Spain, and lowest in a small depression having its centre over the South of Norway. Rapid fall taking place later in Ireland, and centre of deep depression appearing off our extreme north-west coasts.





Friday, May 20.

Weather fine in Sweden, Germany, and the east of France, but cloudy elsewhere, with rain in many parts of our Islands as well as in the Netherlands and north of France. Squalls of hail, rain, or sleet occurring generally later, with thunderstorms at some of the English stations.

Temperature fallen in our Islands, but risen at most of the Continental stations; readings over the United Kingdom ranging from 52° at Jersey to 40° at Aberdeen, Leith, Belmullet, and Barrow-in-Furness.

Wind North-Westerly in the west of our Islands and Westerly in the south, but Southerly on the eastern shores of the North Sea; strong to a gale on all but the Scotch coasts, and gale very severe over the Irish Sea. Subsequently increasing to a fresh gale from North in Scotland.

Sea very high off our north-west coasts, and rough in the west and south generally.

Barometer rising in Scandinavia and the west of our Islands, but falling elsewhere. Pressure highest (30·2 ins. and upwards) in Portugal, with the centre of a deep depression off the north east of England. Depression subsequently moving northwards, and barometer rising in all parts of the United Kingdom.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

Weather

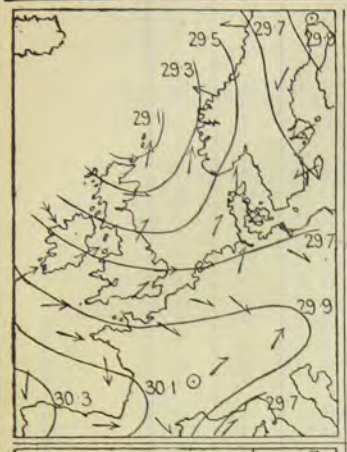
During the 24 hours succeeding

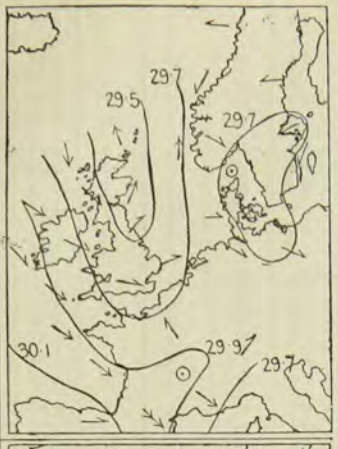
8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Saturday, May 21.

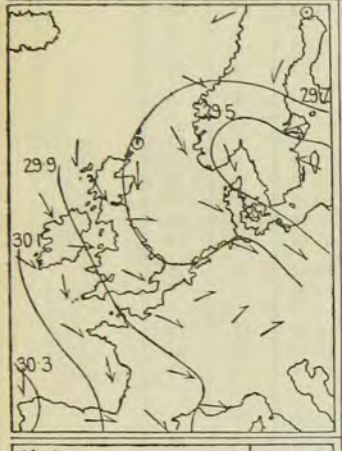
Weather fine in France, the Netherlands, and the eastern parts of Great Britain; but cloudy elsewhere, with rain in Germany and passing showers at several of our western stations. Showers of hail or rain falling generally later, with thunderstorms in some parts of England.

Temperature risen in our Islands, but fallen at the Continental stations; readings over the United Kingdom ranging from 49° at Scilly and Jersey to 40° at Ardrossan.

Wind moderate from West in Scotland and from South-West in the east of England, but strong from North-West or West over our western coasts and the English Channel and from South or South-East in Norway.

Sea rough on our west and south coasts, but moderate or slight in the east.

Barometer rising at all but the northern Scotch stations. Pressure highest, 30·3 ins. and upwards, off the north-west of Spain; depression of the previous day now passing away to the northward of Scotland. Barometer falling a little in south later.



Sunday, May 22.

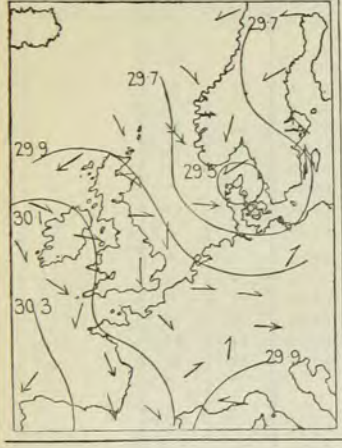
Weather fair generally, but showery at some of our extreme north-western stations. Showers falling generally later.

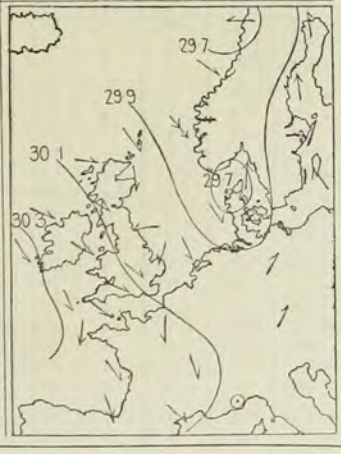
Temperature risen a little in most places; readings over our Islands ranging from 51° at Leith, Prawle Point, and Jersey to 43° at Stornoway, Nairn, Shields, and Oxford.

Wind moderate North-Westerly over our Islands, France, and the eastern shores of the North Sea, but South-Westerly over South Germany and Easterly in Sweden and the north of Norway.

Sea rather rough on our south-west coasts, but moderate to smooth elsewhere.

Barometer rising in our Islands and the west of Norway, but falling elsewhere. Pressure highest off the north-west of Spain and lowest in a large depression lying over the south of Sweden. Depression subsequently advancing westwards over the south of Scandinavia.





Monday, May 23.

Weather fair generally, but rather cloudy in most places, with rain in the east of France. Local showers falling later in some parts of our Islands.

Temperature risen a little generally; readings over our Islands ranging from 55° at Roche's Point to 45° in the Shetlands.

Wind moderate to fresh from the North-Westward over our Islands and France, but Westerly over the Netherlands and Germany, and South-Easterly or Easterly in Sweden.

Sea rather rough at Scilly, but moderate to smooth elsewhere.

Barometer rising generally. Pressure highest off the north-west of Spain, with a depression over the north of Denmark. Rise continuing all day, and anticyclone off the Spanish coast moving northwards.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	55	36	50·6	41·0	45·5	− 1·5	29	3	3	0·68	+0·29	*	*
	Stornoway													
	Wick	61	32	52·6	37·4	44·5	− 3·1	37	13	5	0·60	+0·23	*	*
	Lairg Ś	53	32	45·4	36·1	40·5	− 6·5	10	21	4	0·19	−0·34	14	12
	Glencarron Ś	56	33	49·0	36·6	42·4	− 5·0	25	15	7	2·43	?		
	Fort Augustus Ś	62	32	52·9	35·5	43·7	− 3·5	39	18	6	0·46	?	*	*
1. SCOTLAND, E.	Nairn	62	34	53·3	37·4	44·9	− 6·8	40	13	5	0·43	+0·04	*	*
	Aberdeen	63	31	55·1	39·4	46·8	− 3·9	45	7	6	0·99	+0·58	46	40
	Braemar Ś	61	28	54·4	35·3	44·3	− 2·2	44	19	6	0·70	+0·23	38	33
	Ochtertyre Ś	65	32	57·6	38·6	47·5	− 1·8	53	10	3	0·28	−0·28	*	*
	Leith	68	37	59·1	41·0	49·5	− 3·1	57	3	4	0·84	+0·45	*	*
	Marchmont Ś	68	34	55·9	39·1	47·0	− 2·3	47	8	6	1·77	+1·24	39	34
2. ENGLAND, N.E.	Alnwick Castle	61	36	52·3	41·0	46·3	− 2·9	34	3	4	1·41	+0·92	*	*
	Durham	66	33	55·8	38·3	46·5	− 3·7	47	10	6	1·12	+0·64	30	27
	Shields	58	37	52·9	41·4	46·8	− 2·9	36	2	5	0·67	+0·27	*	*
	Scarborough ℳ	61	35	53·0	40·9	46·6	− 4·1	37	3	7	0·93	+0·51	*	*
	York	65	38	56·9	43·4	49·8	− 2·5	55	0	6	0·94	+0·55	28	25
	Spurn Head	55	39	51·7	42·4	46·8	− 4·4	34	0	4	0·53	?	*	*
3. ENGLAND, E.	Hillington ℳ	59	30	55·1	38·6	46·4	− 4·8	45	10	5	0·72	+0·31	21	19
	Yarmouth	57	35	53·6	40·4	44·6	− 7·4	25	4	5	0·77	+0·36	*	*
	Geldeston	59	32	55·2	38·0	46·1	− 6·4	46	11	5	0·49	+0·10	24	22
	Cambridge	60	35	56·7	39·7	47·7	− 5·1	50	6	6	0·57	+0·17	17	15
	Rothamsted	60	35	56·1	39·4	47·3	− 5·6	48	7	5	0·93	+0·45	*	*
	Ingatestone	57	35	54·2	39·6	46·5	− 6·9	42	7	4	0·59	+0·20	22	20
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	71	35	58·0	40·9	48·9	− 3·2	53	3	5	0·59	+0·16	25	23
	Loughborough	64	37	56·4	41·9	48·7	− 4·0	47	0	4	0·55	+0·10	*	*
	Leicester	63	36	57·3	40·9	48·6	− 3·8	51	3	5	0·77	+0·32	18	16
	Cheadle ℳ	62	35	53·6	39·5	46·1	− 5·5	39	7	5	1·01	+0·49	*	*
	Churchstoke ℳ	62	34	54·0	38·4	45·7	− 5·9	41	10	7	0·82	+0·40	38	34
	Hereford ℳ	67	36	57·5	41·6	49·1	− 3·8	51	1	7	0·51	+0·07	*	*
	Cirencester	58	33	54·3	40·7	47·1	− 5·5	41	4	6	0·57	+0·11	43	39
	Oxford	59	36	55·4	41·9	48·3	− 4·6	45	0	6	0·48	+0·06	35	32
5. ENGLAND, S.	London	61	37	56·6	41·7	48·7	− 5·5	48	1	6	0·67	+0·27	23	21
	Strathfield Turgiss ℳ	63	36	57·2	41·6	48·9	− 3·2	50	1	?6	?0·72	?+0·36	*	*
	Dungeness	56	35	53·9	42·3	47·8	− 5·6	41	0	4	0·49	+0·09	*	*
	Hastings (St. Leonard's)	58	35	53·8	40·9	47·0	− 6·3	40	3	6	0·57	+0·16	33	30
	Southampton	62	37	57·5	42·5	49·6	− 3·7	53	0	6	0·46	+0·01	42	39
	Hurst Castle	61	37	55·6	43·3	49·1	− 4·1	50	0	6	0·57	+0·18	*	*
	Stowell ℳ	58	35	54·3	41·6	47·6	− 4·3	41	1	7	0·57	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	60	37	52·6	40·9	46·4	− 3·1	35	3	6	1·31	+0·42	*	*
	Glasgow	63	35	54·0	39·2	46·2	− 3·2	41	8	4	0·94	+0·41	33	29
	Ardrossan	57	36	53·1	40·1	46·2	− 3·7	37	5	5	1·60	+1·10	*	*
	Glenlee Ś	65	32	55·0	37·9	45·9	− 3·3	45	11	4	1·34	?	*	*
	Douglas (Isle of Man)	63	39	54·0	42·3	47·8	− 2·1	41	0	5	1·16	+0·74	45	40
7. ENGLAND, N.W.	Newton Reigny (Penrith)	64	31	53·1	36·7	44·4	− 5·2	39	15	6	1·46	+1·04	37	33
	Barrow-in-Furness	59	39	52·7	42·7	47·4	− 4·3	38	0	4	1·10	+0·68	*	*
	Stonyhurst	62	35	53·3	40·3	46·4	− 5·5	38	5	5	2·12	+1·52	44	39
	Blackpool ℳ	58	38	52·1	41·7	46·6	− 6·2	33	1	5	1·05	+0·52	43	38
	Manchester	62	35	53·4	40·3	46·5	− 5·9	39	5	5	1·57	+1·04	*	*
	Liverpool Obsy (Bidston)	59	39	52·3	42·9	47·3	− 5·4	37	0	6	1·08	+0·68	*	*
	Llandudno ℳ	62	41	54·2	43·1	48·3	− 4·8	44	0	5	0·82	+0·43	22	20
	Holyhead	60	40	54·3	43·6	48·6	− 3·8	46	0	6	0·96	+0·55	*	*
8. ENGLAND, S.W.	Llandovery	66	34	57·1	40·9	48·5	− 4·1	50	3	5	1·30	+0·69	*	*
	Pembroke	56	36	51·4	42·6	46·7	− 5·5	33	0	4	0·35	−0·10	50	45
	Arlington (N. Devon)	60	38	53·6	41·4	47·1	− 5·2	38	2	7	1·09	+0·42	*	*
	Cullompton ℳ	63	33	57·2	42·3	49·3	− 4·1	51	0	5	0·56	+0·09	38	35
	Falmouth	60	40	54·5	44·6	49·3	− 3·6	51	0	6	0·55	+0·03	49	45
	Plymouth	61	40	57·4	45·3	51·0	− 3·1	63	0	6	0·85	+0·38	44	41
	Prawle Point	62	41	55·6	46·4	50·7	− 1·5	61	0	6	0·61	?	*	*
9. IRELAND, N.	Malin Head	55	37	50·4	42·0	45·9	− 3·8	27	0	7	0·96	?	*	*
	Londonderry	66	37	59·0	40·2	49·0	− 2·1	57	5	7	2·03	+1·48	*	*
	Mullaghmore	57	39	52·6	43·1	47·6	− 4·8	39	0	6	1·29	+0·69	*	*
	Belmullet	55	37	51·4	43·3	47·1	− 4·2	36	0	6	1·21	?	*	*
	Markree Castle	56	36	51·8	41·0	46·1	− 6·0	33	3	6	1·67	+1·20	30	27
	Brookeborough	58	34	52·6	39·2	45·5	− 6·5	36	8	6	1·52	?	*	*
	Armagh	59	36	54·7	39·2	46·5	− 5·1	43	8	7	1·19	+0·74	26	23
	Donaghadee	66	37	55·0	42·1	48·2	− 2·8	43	0	7	0·96	+0·47	*	*
	Edgeworthstown	58	35	54·0	39·7	46·4	− 5·1	40	6	5	1·35	+0·84	*	*
10. IRELAND, S.	Dublin	61	38	56·0	42·0	48·6	− 3·6	46	0	6	0·77	+0·34	41	37
	Parsonstown	62	36	55·1	41·7	48·0	− 4·5	43	1	5	1·14	+0·64	34	31
	Kilkenny	64	37	58·3	42·1	49·7	− 2·7	54	0	6	0·69	+0·27	*	*
	Waterford	60	38	58·3	43·0	50·2	− 3·4	57	0	6	0·42	−0·10	*	*
	Roche's Point	60	40	55·0	44·1	49·2	− 4·5	50	0	6	0·41	−0·29	*	*
	Valencia	60	40	55·0	44·3	49·3	− 3·3	51	0	6	1·28	+0·63	30	27
	Killarney	61	37	55·1	42·3	48·3	− 4·0	44	0	6	0·98	?	*	*
	Foynes	58	38	53·8	44·3	48·8	− 3·4	48	0	5	0·70	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	57	41	54·4	46·3	50·1	− 3·5	57	0	5	0·31	−0·07	*	*
	Jersey (Noirmont)	57	42	54·6	46·3	50·2	− 4·1	57	0	6	0·70	+0·31	54	50

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked Ś with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop. At Glencarron, Ingatestone, and Braemar the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

Note.—The observations at Stornoway are temporarily interrupted.

(OFFICIAL COPY.)

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 21.] *Second Series.* WEEK ENDING MONDAY, 30TH MAY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 84.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	69	38	55·4	44·7	49·7	1 above.	54	+10	0	− 4	377	+ 50	547	+ 39
	1. SCOTLAND, EAST	71	37	58·1	44·3	50·8	1 above.	62	− 1	0	− 3	520	+ 62	584	+ 41
	2. ENGLAND, N.E.	60	38	50·3	43·2	46·5	5 below.	32	−33	0	− 2	413	− 55	564	+ 82
	3. ENGLAND, EAST	68	40	55·4	44·4	49·5	4 below.	53	−26	0	− 2	457	−151	675	+168
	4. MIDLAND COUNTIES	66	40	55·0	44·1	49·2	5 below.	50	−29	0	− 2	503	−138	670	+166
	5. ENGLAND, SOUTH	66	41	58·2	45·8	51·6	3 below.	67	−18	0	− 1	548	−136	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	67	40	61·7	46·1	53·5	2 above.	81	+15	0	− 2	502	− 5	445	+ 47
	7. ENGLAND, N.W.	65	39	57·7	45·3	51·1	2 below.	64	− 7	0	− 1	429	−100	501	+118
	8. ENGLAND, S.W.	71	40	59·1	47·0	52·7	1 below.	75	− 3	0	0	581	−110	405	+172
	9. IRELAND NORTH	70	39	60·5	46·4	53·0	0 (average).	77	+10	0	− 1	594	+ 11	373	+ 23
	10. IRELAND, SOUTH	72	39	62·0	47·7	54·4	1 above.	87	+12	0	− 1	711	− 19	336	+ 97
	— CHANNEL ISLANDS	62	47	56·4	48·7	52·3	3 below.	72	−10	0	0	589	−181	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 84.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	1	less than ½	4 less.	88	− 5	16·0	+ 2·5	25	21	385	−118	22	− 7
	1. SCOTLAND, EAST	3	3	2 less.	68	− 6	8·3	− 3·1	27	23	547	− 14	31	− 2
	2. ENGLAND, N.E.	4	4	0 (average).	67	− 6	6·3	− 3·3	1	1	505	+ 2	29	0
	3. ENGLAND, EAST	5	3	1 less.	63	−12	6·9	− 1·9	21	19	601	− 6	34	− 1
	4. MIDLAND COUNTIES	5	3	2 less.	60	−12	6·7	− 3·4	10	9	524	− 13	30	− 1
	5. ENGLAND, SOUTH	4	2	2 less.	61	−10	7·0	− 3·3	18	16	570	+ 7	33	− 0
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	1	less than ½	5 less.	71	−12	14·4	− 3·3	53	46	575	+ 55	33	+ 3
	7. ENGLAND, N.W.	1	1	4 less.	59	−16	9·0	− 3·0	35	31	570 *	+ 47	33	+ 3
	8. ENGLAND, S.W.	3	2	4 less.	62	−17	8·4	− 7·7	24	22	710	+ 98	41	+ 5
	9. IRELAND, NORTH	1	less than ½	5 less.	69	−22	10·8	− 2·1	54	47	573	+ 36	33	+ 2
	10. IRELAND, SOUTH	1	1	5 less.	60	−26	10·3	− 5·3	48	42	708	+105	41	+ 6
	— CHANNEL ISLANDS	4	5	1 more.	70	−16	7·7	− 4·8	27	25	797	+ 63	46	+ 3

General Remarks.

Weather has been generally fair and mild in Ireland and Scotland, but very dull and unseasonable in England, with occasional slight falls of rain.

Temperature has been 1° or 2° above the mean in Scotland and the greater part of Ireland, but in the English districts it has continued below, the deficit ranging from 1° in "England, S.W." to 4° in "England, E." and 5° in the "Midland Counties" and "England, N.E." The highest of the maxima, which were generally recorded during the earlier part of the week, ranged from 60° in "England, N.E." and 62° in the "Channel Islands", to 70° in "Ireland, N.", 71° in "Scotland, E." and "England, S.W.", and to 72° in "Ireland, S." The lowest of the minima, which were registered on irregular dates, varied between 37° in "Scotland, E." and 47° in the "Channel Islands". The minima during this period were considerably higher generally than any recorded since the middle of last October.

Rainfall has been rather more than the mean in the "Channel Islands", but less in nearly all other districts. In Ireland, Scotland, and the north-west of England the fall has been very slight.

Bright sunshine shows an increase in Ireland and the greater part of Scotland, but a decided decrease over England and in the "Channel Islands." The percentage of the possible amount of duration ranged from 46 to 21 in Scotland, and from 47 to 42 in Ireland, while in England it ranged from 31 in "England, N.W." to 9 in the "Midland Counties" and to only 1 in "England, N.E." The percentage of bright sunshine has not been so low in the English districts since the latter end of January.

Depressions observed.—During this period pressure has been highest over the western and north-western parts of our area, and generally lowest to the south-eastward or eastward of our Islands, where several shallow depressions have appeared. The winds experienced have consequently been from between North and North-East or East, and though light or moderate generally, have occasionally blown freshly or strongly on our east and south-east coasts.

* This value has been altered slightly owing to the receipt of further information.

A 51426. 350.—6/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

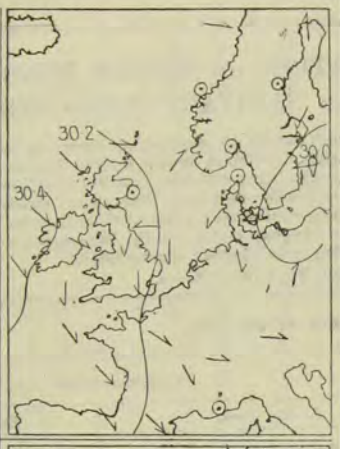
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, May 24.

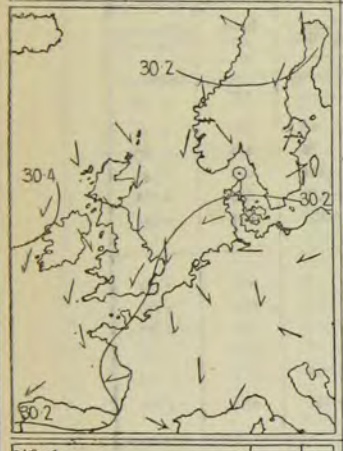
Weather fine in Sweden, Spain, and the south of France, but cloudy elsewhere, with mist locally. Slight rain falling later at many of our eastern and southern stations.

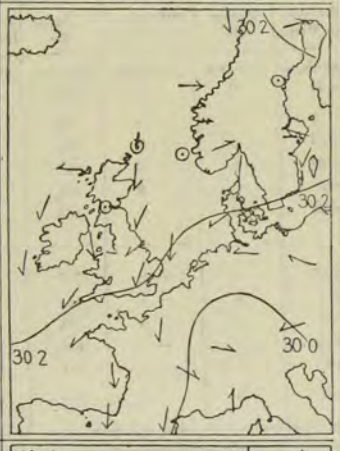
Temperature risen a little in our Islands and fallen several degrees in the north of Scandinavia, but changed irregularly elsewhere; readings over the United Kingdom ranging from 58° at Leith and 56° at Nairn and Roche's Point to 48° at Sumburgh Head and Aberdeen.

Wind light or moderate from the North-Westward over the greater part of our Islands and France, but Easterly in the south of Sweden, and Southerly in the north of Scandinavia. Subsequently veering to the Northward over the United Kingdom.

Sea moderate to smooth.

Barometer rising generally. Pressure highest to the south-westward of our Islands, but relatively high over Northern Europe, with a large but somewhat shallow depression over Denmark. Depression subsequently moving southwards over the Netherlands.





Wednesday, May 25.

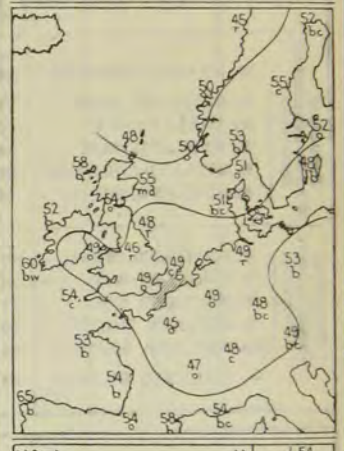
Weather fine in Ireland and the west of Scotland, as well as in Spain, Germany, and the south of France, but cloudy elsewhere, with rain over the eastern parts of Great Britain.

Temperature changed rather irregularly; readings over our Islands ranging from 60° at Valencia to 46° at York. Subsequently rising to 68° in the west of Ireland, but thermometer over England not reaching 60°.

Wind variable in Scandinavia, but North-Westerly or Northerly elsewhere; light or moderate in force generally. Subsequently veering to the North-Eastward on our eastern and southern coasts.

Sea rather rough at Cape Gris Nez, but slight or smooth elsewhere.

Barometer rising at all our more northern and eastern stations, but falling a little in most other localities. Anticyclone lying off our extreme western coasts, with a large and irregularly formed area of low pressure over Western Germany and the east of France. Slight fall taking place later on our east coasts.



Thursday, May 26.

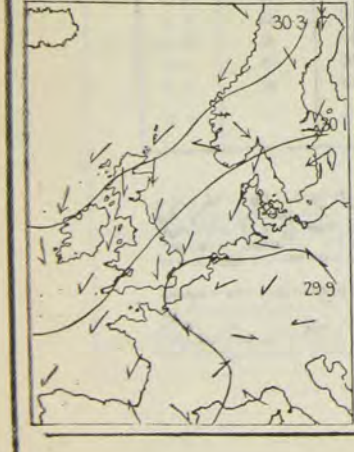
Weather fine over the Netherlands, Denmark, and the north-west of England, but cloudy elsewhere, with passing showers in the north of Ireland. Sky clearing in most places later. Thunder heard over Central England during day.

Temperature changed somewhat irregularly; readings over our Islands ranging from 58° at Valencia and 56° at Belmullet to 46° at Shields. Subsequently rising to 64° at Loughborough and Ardrossan, 65° in London, and to 68° at Cambridge.

Wind light Northerly in Scandinavia, but Easterly or North-Easterly elsewhere; fresh in force over the south and south-east of England.

Sea rough at Cape Gris Nez, but moderate to smooth elsewhere.

Barometer rising over Scandinavia and the north of our Islands, but falling elsewhere. Large anticyclone lying over the north of our Islands and the west of Norway, and shallow area of low pressure over France and South Germany. Fall taking place generally later.



Friday, May 27.

Weather fine in the west, but cloudy elsewhere, with rain over Belgium and the eastern parts of England and France.

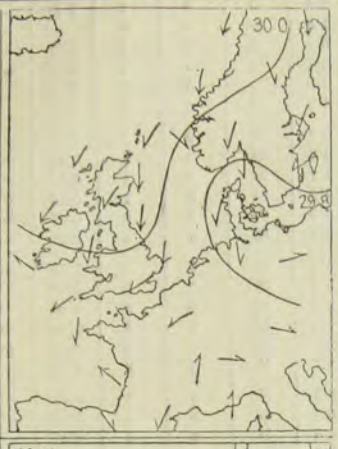
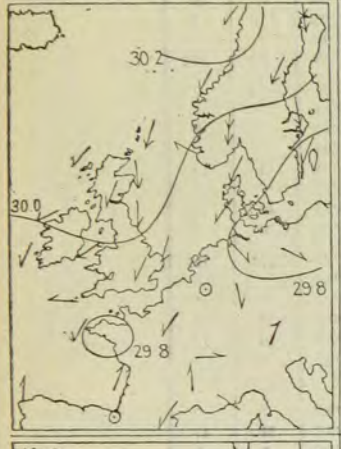
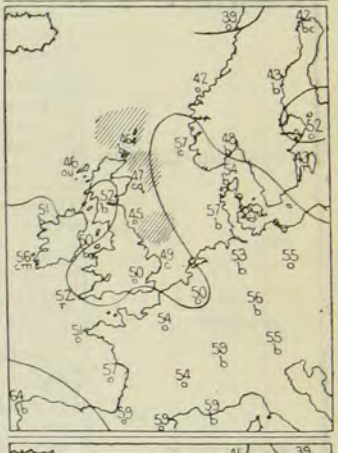
Temperature fallen a little in the east of England, but risen elsewhere; readings over our Islands ranging from 59° at Valencia to 45° in London.

Wind Northerly or North-Westerly, fresh or strong on all but our western coasts. Subsequently freshening a little in the west.

Sea moderate to smooth.

Barometer falling generally. Anticyclone still lying to the northward of our Islands and the westward of Norway, with a small depression over Belgium and the north-east of France. Fall continuing all day.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, May 28.** *Weather* fine in the north and north-west of our Islands, the east of France, and many parts of Scandinavia, but cloudy elsewhere, with rain in Germany and the east of England. Some improvement taking place over England later. *Temperature* fallen over the southern parts of France and Germany, but risen elsewhere; readings over our Islands ranging from 57° at Mullaghmore and Parsonstown to 45° at Shields. *Wind* variable in the east of France and South-Westerly in Germany, but Northerly or North-Easterly elsewhere; strong in force on the east coasts of Great Britain. Subsequently veering to East on our south coasts. *Sea* rather rough at Sumburgh Head and Shields, but moderate to smooth elsewhere. *Barometer* falling generally. Pressure still highest to the northward of our Islands and the westward of Norway, with large but shallow areas of low readings over the northern parts of Germany and Spain.	
		**Sunday, May 29.** *Weather* fine on our north and north-west coasts as well as in Sweden, Denmark, and North Germany, but cloudy elsewhere, with rain in the western parts of the Channel. Rain extending eastwards later. *Temperature* risen over France and Germany, but fallen elsewhere; readings over our Islands ranging from 57° at Belmullet to 45° at Shields. *Wind* variable in Germany and France and Easterly on our western coasts, but North-Easterly or Northerly elsewhere; strong in force in Scandinavia and the east of Scotland. *Sea* rough off the north and east of Scotland, but moderate to smooth elsewhere. *Barometer* falling in our Islands, but rising at many of the Continental stations. Pressure still highest to the northward of Scotland and the westward of Norway, with shallow areas of low readings over Germany and France. Rise taking place generally later.	
		Monday, May 30. *Weather* fine in the west of Ireland, and also in Scandinavia and Denmark, but cloudy elsewhere, with mist or fog in the east and south of England. Sky clearing in many places later. *Temperature* changed little and irregularly; readings over our Islands ranging from 56° at Valencia to 45° at Sumburgh Head, Stornoway, and Nairn. *Wind* variable in Germany and the greater part of France, but Easterly or North-Easterly elsewhere; light or moderate in force generally. Westerly breeze setting in later over the Bay of Biscay. *Sea* moderate to smooth. *Barometer* rising generally. Anticyclone lying over Scandinavia and the greater part of Scotland and the North Sea, with shallow areas of low pressure over France, Spain, and the Baltic. Rise continuing all day, and low pressure systems partially dispersing.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 81 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	55	40	52·0	42·7	47·1	− 1·0	36	0	2	0·05	−0·35	*	*
	Stornoway	62	42	55·3	46·3	50·5	+ 1·6	60	0	0	—	−0·51	?	?
	Wick	58	39	54·7	43·6	48·8	+ 0·1	48	0	2	0·07	−0·31	*	*
	Lairg ℌ	56	38	52·6	44·1	48·1	+ 0·1	43	0	1	0·01	−0·54		
	Glencarron ℌ	65	40	60·6	45·6	52·7	+ 3·9	75	0	1	0·02	?	25‡	21‡
	Fort Augustus ℌ	69	42	57·3	45·6	51·1	+ 0·1	64	0	2	0·04	?	*	*
1. SCOTLAND, E.	Nairn	65	42	57·4	45·9	51·3	+ 0·3	65	0	2	0·14	−0·26	*	*
	Aberdeen	61	43	55·6	45·1	50·0	+ 0·3	56	0	4	0·40	−0·02	20	17
	Braemar ℌ	65	38	58·0	42·8	49·9	+ 1·7	55	0	1	0·18	−0·30	49‡	42‡
	Ochtertyre ℌ	71	37	67·4	43·4	55·0	+ 4·0	91	0	1	0·16	−0·41	*	*
	Leith	70	44	58·1	45·4	51·4	− 0·6	66	0	2	0·25	−0·15	*	*
	Marchmont ℌ	58	41	52·0	43·4	47·4	− 2·7	38	0	5	0·37	−0·19	11	9
2. ENGLAND, N.E.	Alnwick Castle	55	42	48·7	43·7	46·1	− 4·5	29	0	4	0·35	−0·13	*	*
	Durham	58	40	50·0	42·2	45·9	− 5·8	27	0	5	0·48	0·00	1	1
	Shields	52	40	48·9	43·1	45·5	− 5·3	25	0	2	0·40	0·00	*	*
	Scarborough ℳ	51	40	47·4	42·3	44·7	− 7·1	19	0	5	0·42	−0·01	*	*
	York	60	38	55·9	42·6	48·9	− 4·5	48	0	4	0·47	+0·07	?	?
	Spurn Head	54	44	50·9	45·0	47·8	− 4·7	41	0	5	0·47	?	*	*
3. ENGLAND, E.	Hillington ℳ	62	42	55·0	44·2	49·3	− 3·1	51	0	4	0·31	−0·14	15	13
	Yarmouth	55	42	52·7	45·4	48·7	− 4·3	47	0	3	0·14	−0·28	*	*
	Geldeston	59	40	54·4	44·8	49·3	− 4·8	51	0	4	0·32	−0·08	27	24
	Cambridge	68	43	57·7	44·0	50·4	− 3·3	59	0	5	0·42	−0·03	? 8	? 7
	Rothamsted	62	43	55·4	43·9	49·3	− 5·4	51	0	6	0·33	−0·15	*	*
	Ingatestone	62	42	57·1	44·1	50·2	− 4·2	57	0	5	0·28	−0·13	12‡	11‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	60	40	54·7	42·9	48·5	− 5·4	46	0	3	0·43	−0·04	8‡	7‡
	Loughborough	64	44	54·9	44·7	49·5	− 4·9	53	0	7	0·50	+0·03	*	*
	Leicester	64	43	55·0	44·5	49·4	− 5·2	52	0	7	0·63	+0·14	8	7
	Cheadle ℳ	59	40	54·7	42·7	48·3	− 4·7	44	0	4	0·25	−0·30	*	*
	Churchstoke ℳ	62	40	53·9	43·2	48·2	− 4·7	43	0	4	0·11	−0·34	11	10
	Hereford ℳ	66	43	56·4	46·0	50·9	− 3·4	62	0	4	0·20	−0·27	*	*
	Cirencester	60	42	54·6	44·3	49·1	− 5·0	50	0	5	0·18	−0·30	12	11
	Oxford	62	44	55·4	44·7	49·7	− 4·6	54	0	5	0·19	−0·24	10	9
5. ENGLAND, S.	London	65	45	58·7	45·6	51·8	− 3·9	69	0	6	0·37	−0·06	12‡	11‡
	Strathfield Turgiss ℳ	65	43	58·9	44·4	51·2	− 2·2	64	0	3	0·20	−0·18	*	*
	Dungeness	61	41	57·0	45·3	50·8	− 3·7	62	0	3	0·17	−0·23	*	*
	Hastings (St. Leonard's)	62	43	56·8	45·6	50·9	− 4·0	62	0	5	0·20	−0·20	23	21
	Southampton	66	45	60·2	47·0	53·2	− 1·6	78	0	4	0·10	−0·35	19	17
	Hurst Castle	66	45	58·6	46·7	52·3	− 2·1	72	0	5	0·14	−0·26	*	*
	Stowell ℳ	63	44	57·2	45·9	51·2	− 1·7	64	0	3	0·05	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	63	40	60·5	44·8	52·2	+ 2·0	71	0	0	— †	−0·95	*	*
	Glasgow	67	41	62·6	47·2	54·4	+ 3·3	87	0	1	0·05	−0·52	52	45
	Ardrossan	67	42	63·4	46·3	54·3	+ 2·8	86	0	1	0·02	−0·50	*	*
	Glenlee ℌ	64	43	62·4	45·7	53·6	+ 2·6	81	0	0	—	?	*	*
	Douglas (Isle of Man)	65	45	59·7	46·7	52·8	+ 1·3	76	0	1	0·02	−0·43	53	46
7. ENGLAND, N.W.	Newton Reigny (Penrith)	62	39	57·6	43·9	50·3	− 0·6	58	0	0	—	−0·45	34	30
	Barrow-in-Furness	65	45	61·1	47·0	53·6	+ 0·4	81	0	0	—	−0·44	*	*
	Stonyhurst	63	41	57·7	44·2	50·6	− 2·5	60	0	1	0·12	−0·43	38	33
	Blackpool ℳ	64	37	60·2	43·2	51·2	− 3·0	64	0	1	0·04	−0·41	40	35
	Manchester	59	41	56·0	44·4	49·9	− 4·2	55	0	4	0·28	−0·29	*	*
	Liverpool Obsy (Bidston)	60	44	57·3	46·1	51·4	− 2·8	66	0	2	0·17	−0·25	*	*
	Llandudno ℳ	59	44	56·0	46·4	50·9	− 3·7	62	0	1	0·07	−0·32	28	25
	Holyhead	59	46	55·3	47·0	50·9	− 2·5	62	0	0	—	−0·42	*	*
8. ENGLAND, S.W.	Llandovery	64	40	59·4	43·7	51·1	− 2·4	64	0	1	0·01	−0·54	*	*
	Pembroke	62	46	57·1	47·7	52·1	− 1·6	71	0	0	—	−0·45	22	20
	Arlington (N. Devon)	61	42	57·9	44·1	50·5	− 3·4	60	0	2	0·04	−0·71	*	*
	Cullompton ℳ	68	44	59·6	47·4	53·1	− 1·7	78	0	2	0·02	−0·48	15	14
	Falmouth	63	46	58·2	48·5	53·1	− 1·1	78	0	5	0·61	−0·03	35	32
	Plymouth	66	46	62·3	49·5	55·5	+ 0·4	95	0	3	0·29	−0·18	25	23
	Prawle Point	71	47	59·4	48·4	53·6	+ 0·2	81	0	5	0·14	?	*	*
9. IRELAND, N.	Malin Head	55	43	54·3	47·6	50·7	− 0·2	61	0	1	0·01	?	*	*
	Londonderry	70	41	67·7	46·6	56·5	+ 4·1	102	0	1	0·01	−0·54	*	*
	Mullaghmore	65	44	59·6	48·0	53·5	− 0·2	81	0	1	0·03	−0·62	*	*
	Belmullet	63	44	58·0	47·4	52·4	+ 0·1	73	0	0	—	?	*	*
	Markree Castle	69	40	61·7	45·4	53·1	− 0·3	78	0	0	—	−0·50	54	47
	Brookeborough	68	39	52·2	45·9	53·6	+ 0·2	81	0	0	—	?	*	*
	Armagh	66	40	61·1	45·2	52·7	− 0·2	75	0	1	0·02	−0·44	53	46
	Donaghadee	60	45	59·0	47·1	52·7	+ 0·5	75	0	0	—	−0·49	*	*
	Edgeworthstown	67	39	61·0	44·3	52·2	0·0	71	0	1	0·02	−0·53	*	*
10. IRELAND, S.	Dublin	67	46	60·3	48·9	54·3	+ 0·6	86	0	1	0·01	−0·43	51	45
	Parsonstown	68	39	62·6	45·6	53·6	0·0	81	0	0	—	−0·52	48	42
	Kilkenny	72	41	65·3	47·3	55·8	+ 2·3	97	0	0	—	−0·45	*	*
	Waterford	68	44	62·6	48·2	55·0	+ 0·2	91	0	1	0·03	−0·51	*	*
	Roche's Point	65	46	59·0	48·7	53·5	− 1·4	81	0	3	0·08	−0·63	*	*
	Valencia	68	42	61·1	47·4	53·8	+ 0·1	83	0	1	0·20	−0·50	45	40
	Killarney	68	40	61·6	48·5	54·7	+ 1·3	89	0	1	0·11	?	*	*
	Foynes	68	43	63·6	46·9	54·8	+ 1·6	90	0	1	0·01	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	56	47	54·7	48·7	51·5	− 3·2	67	0	4	0·72	+0·32	*	*
	Jersey (Noirmont)	62	47	58·0	48·7	53·1	− 2·5	78	0	4	0·18	−0·22	27	25

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop. At Glencarron, Ingatestone, and Braemar the Bright Sunshine values are obtained by Jordan's Photographic Recorder. The Bright Sunshine values entered to Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 22.] *Second Series.* WEEK ENDING MONDAY, 6TH JUNE, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 88.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	70	36	58·0	43·8	50·4	0 (average).	59	+10	0	− 2	436	+ 59	547	+ 39
	1. SCOTLAND, EAST	72	33	60·9	42·9	51·3	1 below.	65	− 4	0	− 2	585	+ 57	584	+ 42
	2. ENGLAND, N.E.	73	39	57·7	45·5	51·2	2 below.	64	− 9	0	− 1	477	− 64	564	+ 82
	3. ENGLAND, EAST	72	43	63·2	48·1	55·1	0 (average).	92	+ 6	0	− 1	549	−143	675	+168
	4. MIDLAND COUNTIES	72	38	62·1	46·5	53·7	2 below.	82	− 4	0	− 1	585	−139	670	+166
	5. ENGLAND, SOUTH	70	43	61·7	49·0	54·9	1 below.	90	− 2	0	0	638	−138	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	67	35	60·6	46·1	52·9	0 (average).	76	+ 3	0	− 1	578	− 2	445	+ 47
	7. ENGLAND, N.W.	67	34	60·3	46·8	53·1	2 below.	78	0	0	− 1	507	− 99	501	+118
	8. ENGLAND, S.W.	69	39	61·8	49·1	54·9	1 below.	90	+ 5	0	0	671	−105	405	+172
	9. IRELAND NORTH	76	41	63·1	48·2	55·1	1 above.	92	+18	0	0	686	+ 28	373	+ 23
	10. IRELAND, SOUTH	70	40	62·0	48·7	54·9	0 (average).	90	+ 9	0	0	801	− 10	336	+ 97
	— CHANNEL ISLANDS	65	47	60·8	50·9	55·5	1 below.	95	+ 7	0	0	684	−175	170	+177

Rainfall.

	DISTRICTS. (See p. 88.)	For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.
			10ths of In.				Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	3	2	3 less.	91	− 6	16·2	+ 2·2
	1. SCOTLAND, EAST	2	3	2 less.	70	− 7	8·6	− 3·3
	2. ENGLAND, N.E.	2	2	3 less.	69	− 7	6·5	− 3·5
	3. ENGLAND, EAST	3	4	1 less.	66	−12	7·3	− 1·9
	4. MIDLAND COUNTIES	4	13	8 more.	64	−11	8·0	− 2·7
	5. ENGLAND, SOUTH	3	11	6 more.	64	− 8	8·1	− 2·6
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	3	5	1 less.	74	−13	14·9	+ 3·4
	7. ENGLAND, N.W.	3	8	2 more.	62	−16	9·8	− 2·7
	8. ENGLAND, S.W.	4	5	1 less.	66	−17	8·9	− 7·8
	9. IRELAND, NORTH	3	4	2 less.	72	−22	11·2	− 2·3
	10. IRELAND, SOUTH	4	5	1 less.	64	−25	10·8	− 5·4
	— CHANNEL ISLANDS	5	6	2 more.	75	−15	8·3	− 4·7

Bright Sunshine.

	DISTRICTS. (See p. 88.)	For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	20	16	405	−139	22	− 8
	1. SCOTLAND, EAST	47	39	594	− 24	32	− 2
	2. ENGLAND, N.E.	33	28	545	− 3	29	− 1
	3. ENGLAND, EAST	37	33	638	− 25	34	− 2
	4. MIDLAND COUNTIES	19	17	543	− 44	29	− 3
	5. ENGLAND, SOUTH	27	24	597	− 18	32	− 2
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	26	22	601	+ 29	32	+ 1
	7. ENGLAND, N.W.	40	35	610	+ 35	33	+ 2
	8. ENGLAND, S.W.	23	20	733	+ 70	39	+ 3
	9. IRELAND, NORTH	31	27	604	+ 15	33	+ 1
	10. IRELAND, SOUTH	26	23	734	+ 83	40	+ 4
	— CHANNEL ISLANDS	39	35	856	+ 41	45	+ 1

General Remarks.

Weather continued cloudy or dull generally during the earlier part of the period, with some rain at most of the English and Irish stations, but drier conditions in Scotland. During the 2nd and 3rd June the rainfall in most parts of England was heavy and continuous; at Lutterworth snow fell during the early hours of the latter day. As the week drew towards its close the weather over England improved considerably, while in Scotland it became unsettled and showery.

Temperature has been 1° above the mean in "Ireland, N." and about equal to its normal value in the south of Ireland, the north and west of Scotland, and in the east of England, but in all other districts it has continued below, the deficit varying from 1° to 2°. The highest of the maxima, which were generally recorded either on the 5th or 6th, varied from 65° in the "Channel Islands" to 73° in "England, N.E." and 76° in "Ireland, N." The lowest of the minima, which were registered on irregular dates, varied from 33° in "Scotland, E.", 34° in "England, N.W.", and 35° in "Scotland, W." to 43° in "England, E." and "England, S.", and to 47° in the "Channel Islands".

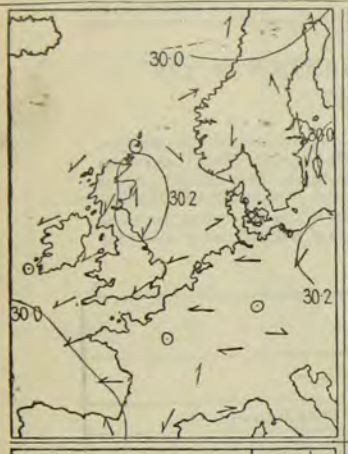
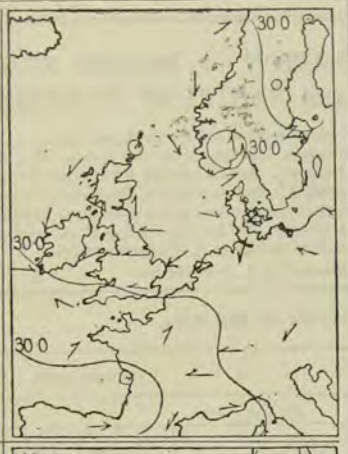
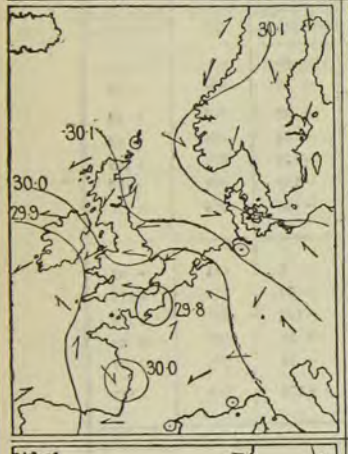
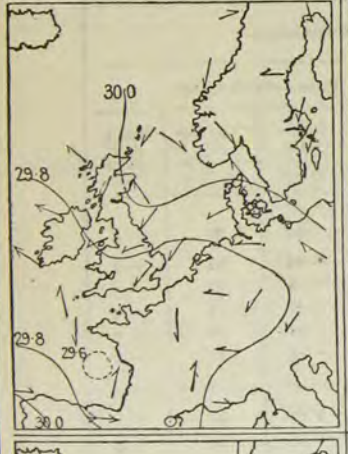
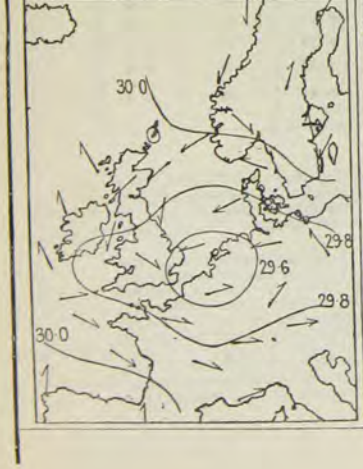
Rainfall has been more than the mean over central, southern, and north-western England, as well as in the "Channel Islands", but less in all other districts.

Bright sunshine shows an increase on that recorded last week over England, but a decrease at most of the Irish and Scotch stations; it has still been very deficient generally, the percentage of the possible amount of duration ranging from 16 in "Scotland, N." and 17 in the "Midland Counties", to 35 in the "Channel Islands", 36 in "England, N.W.", and 39 in "Scotland, E."

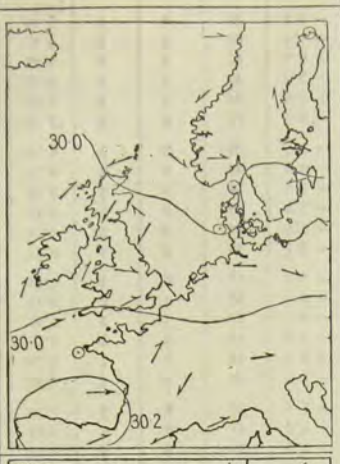
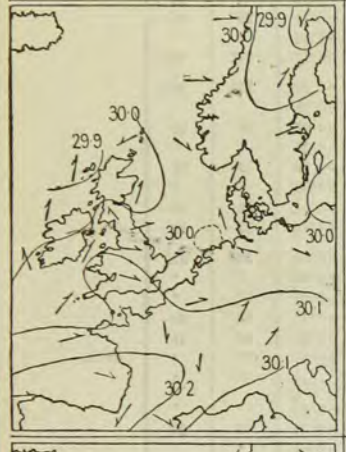
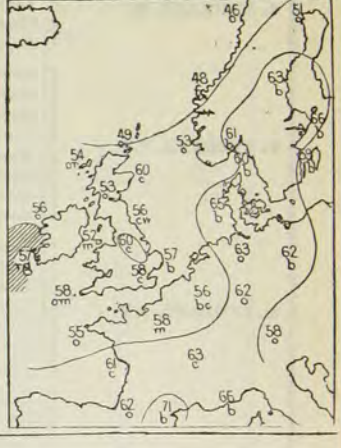
Depressions observed.—During the earlier days of this period barometric pressure was highest over the northern parts of our area, while in the south and south-east some shallow depressions were shown. The most important of these disturbances travelled rather quickly in a north-easterly direction from the north of Spain to the Netherlands during the 2nd and 3rd June. The passage of this depression over the north of France and its gradual dispersal over the Netherlands were attended by the heavy falls of rain noticed in the English districts. The system was succeeded by a decided rise of the barometer in the southern parts of our area, while in the north and west pressure became comparatively low. At the end of the period depressions were skirting our extreme western coasts, and the winds in our Islands had shifted from the North-Eastward to the Southward or South-Westward.

A 51492. 350.—6/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, May 31.** *Weather* dull in Ireland and the west of France, and misty over the English Channel, but fair or fine elsewhere. Rain falling later at many of our southern stations. *Temperature* risen generally; readings over our Islands ranging from 59° at Jersey to 44° at Shields. Subsequently rising to 65° at several of our north-western stations, to 67° at Cambridge, and to 68° in London. *Wind* Southerly in the north of Scandinavia and North-Westerly in the west of Norway, but chiefly Easterly elsewhere; light or moderate in force generally. *Sea* moderate to smooth. *Barometer* rising at all but the Swedish stations. Areas of high pressure (30·2 ins. and upwards) lying respectively over Germany and the east of Scotland, and areas of low readings over the north of Scandinavia and the Bay of Biscay. Fall taking place generally later, and anticyclonic systems dispersing.	
		**Wednesday, June 1.** *Weather* cloudy in France and the southern parts of our Islands, with fog at the Channel stations and rain in the south of Ireland, but fair in most other localities. *Temperature* changed irregularly; readings over our Islands ranging from 60° at Leith to 46° at Shields and 45° at Sumburgh Head. *Wind* chiefly Easterly in our Islands, but Northerly in Scandinavia and variable in France; light or moderate in force generally. Subsequently veering to the South-Eastwards at many of our western and northern stations. *Sea* moderate to smooth. *Barometer* falling at all but the Scandinavian stations. Pressure highest (30·1 ins. and upwards) over the North Seatand the west of Norway, with a large area of low readings off our south-west coasts and the north-west of Spain, and a small depression near the Straits of Dover. Fall becoming general later, and new depression appearing near Biarritz.	
		**Thursday, June 2.** *Weather* dull over France and the eastern and southern parts of Great Britain, with rain at Paris and Nice, but fair or fine elsewhere. Heavy rain falling in south of England later, with thunderstorms in places. *Temperature* changed irregularly; readings over our Islands ranging from 56° at Holyhead to 46° at Sumburgh Head, Wick, Aberdeen, and Shields. *Wind* moderate from East or South-East in Ireland and Scotland, but Northerly in Scandinavia, North-Easterly in England and Germany, and Westerly in Spain and the extreme south of France. Subsequently veering to the Westward or North-Westward over the Bay of Biscay. *Sea* rather rough at Spurn Head and Valencia, but moderate to smooth elsewhere. *Barometer* falling at all but the Scandinavian stations. Pressure relatively high over Scandinavia and Portugal, with shallow areas of low readings over France and the south-west of Ireland, and a small depression near Rochefort. Depression subsequently growing larger and deeper, and moving north-eastward to the north-east of France.	
		**Friday, June 3.** *Weather* fine in Scandinavia, Denmark, and the western parts of our Islands and France, but cloudy elsewhere, with heavy rain over England, the Netherlands, and the east of France. *Temperature* changed irregularly; readings over our Islands ranging from 57° at Belmullet and Valencia to 45° in the Shetlands. *Wind* moderate to fresh from the North-Eastward over Denmark and the eastern parts of Great Britain, and North-Westerly or Westerly over the south of England and the greater part of France, but South-Easterly in the West of Ireland, and variable in Scandinavia. Subsequently backing to South-West in the west of France. *Sea* rather rough at Spurn Head, but moderate to smooth elsewhere. *Barometer* falling over Great Britain and the North Sea, but rising in most other localities. Pressure high both in Spain and the north of Scandinavia, with a well defined depression over the Netherlands and east of England. Depression subsequently filling up, but new disturbance appearing near Biarritz.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, June 4.** *Weather* fine in Scandinavia, Denmark, and the east of Scotland, as well as at some of the Irish stations, but cloudy elsewhere, with fog in the western parts of the Channel and rain over the northern parts of Ireland and England. Improvement taking place over England later. *Temperature* risen in most places; readings over our Islands ranging from 60° at Belmullet to 49° at Sumburgh Head and Shields. Subsequently rising to 68° in London, 69° at Parsonstown, and 70° at Loughborough and Cambridge. *Wind* Easterly over Scandinavia, Denmark, and the north of our Islands and South-Easterly in the south of Ireland, but South-Westerly over France, Belgium, and the southern parts of England and Germany. *Sea* moderate to smooth. *Barometer* rising generally. Pressure highest in Spain and the south of France, but relatively high over Scandinavia, with a long trough of low readings over Ireland, England, and the Netherlands, and small shallow depressions over Holland and North Germany. Fall taking place in Sweden later.	
		**Sunday, June 5.** *Weather* fair generally, but dull on the west coasts of Ireland and France, and foggy at the Channel stations. *Temperature* risen a little in most places; readings over our Islands ranging from 63° at Yarmouth and 60° at Aberdeen and Parsonstown to 50° at Holyhead and Prawle Point. Subsequently rising to 68° at Mullaghmore and in London, 70° at Leith, and 73° at York. *Wind* light or moderate from South on our west coasts, and Westerly in the east and south, but variable on the eastern shores of the North Sea and North-Westerly in the south of France. *Sea* moderate to smooth. *Barometer* rising at all but our extreme northern stations. Pressure highest over Spain and France, with shallow depressions lying respectively over the Gulf of Bothnia and to the north-westward of Scotland. Fall taking place in Ireland later.	
		Monday, June 6. *Weather* dull and rainy at our extreme western and northern stations, but fair or fine in most other localities. *Temperature* fallen a little in Scandinavia and the north of Scotland, but risen elsewhere; readings over our Islands ranging from 61° at Cambridge to 49° in the Shetlands. Subsequently rising to 70° at Aberdeen and Cambridge and 71° at York. *Wind* Southerly and South-Westerly in our Islands; fresh or strong in force in Ireland. Light Westerly in Denmark and Germany, but variable in most other parts of the Continent. *Sea* rather rough at Valencia, but moderate to smooth elsewhere. *Barometer* risen a little over England, France, and Germany, but fallen in our Islands and Scandinavia. Pressure highest over the Bay of Biscay and the west of France, and depression systems moving northwards along our extreme western coasts. Fall taking place generally later.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; ⟹ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 85 has been calcula...

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	56	39	52·1	42·6	47·0	− 2·3	35	0	1	0·04	−0·40	*	*
	Stornoway	65	37	59·6	43·7	51·1	+ 0·9	64	0	3	0·35	−0·28	?	?
	Wick	63	40	57·1	42·7	49·4	− 0·7	52	0	3	0·07	−0·32	*	*
	Lairg ℌ	57	36	53·3	44·6	48·3	− 1·0	44	0	2	0·17	−0·39		
	Glencarron ℌ	69	40	64·7	44·6	54·0	+ 3·6	84	0	3	0·32	?	20‡	16‡
	Fort Augustus ℌ	70	41	60·9	45·0	52·4	− 0·2	73	0	3	†0·19	?	*	*
1. SCOTLAND, E.	Nairn	68	37	59·1	43·7	50·9	− 1·5	62	0	2	0·04	−0·37	*	*
	Aberdeen	70	40	59·7	43·7	51·1	− 0·3	64	0	2	0·15	−0·27	48	40
	Braemar ℌ	69	33	64·1	38·8	50·6	+ 0·9	74	9	2	0·09	−0·46	57‡	47‡
	Ochtertyre ℌ	72	37	65·0	44·6	54·1	+ 1·5	85	0	2	0·58	−0·04	*	*
	Leith	70	39	59·4	43·9	51·1	− 2·1	64	0	2	0·23	−0·17	*	*
	Marchmont ℌ	66	36	57·9	42·6	49·7	− 2·1	54	0	2	0·48	−0·12	37	31
2. ENGLAND, N.E.	Alnwick Castle	67	40	55·3	46·1	50·4	− 1·8	59	0	2	0·24	−0·23	*	*
	Durham	71	41	58·5	44·2	50·8	− 2·7	62	0	3	0·24	−0·24	26	22
	Shields	66	40	55·0	44·4	49·3	− 3·1	51	0	2	0·23	−0·17	*	*
	Scarborough ℳ	69	40	56·4	46·1	50·9	− 2·3	62	0	2	0·11	−0·33	*	*
	York	73	39	64·7	44·6	54·0	− 0·9	84	0	2	0·10	−0·36	40	34
	Spurn Head	66	45	56·3	47·7	51·7	− 1·9	68	0	3	0·09	?	*	*
3. ENGLAND, E.	Hillington ℳ	71	44	64·5	46·9	55·1	+ 1·0	92	0	2	0·19	−0·28	37	32
	Yarmouth	68	48	60·0	49·6	54·4	− 0·2	87	0	3	0·20	−0·25	*	*
	Geldeston	72	45	63·9	48·1	55·5	0·0	95	0	2	0·14	−0·26	46	41
	Cambridge	70	43	65·1	47·4	55·6	+ 0·2	95	0	3	0·39	−0·11	29	26
	Rothamsted	70	45	62·0	47·8	54·4	− 2·0	87	0	5	0·92	+0·42	*	*
	Ingatestone	68	44	63·6	48·5	55·5	− 0·9	95	0	4	0·62	+0·17	36‡	32‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	70	39	64·3	46·3	54·7	− 0·5	89	0	3	0·22	−0·30	22‡	19‡
	Loughborough	70	39	63·0	46·6	54·2	− 2·0	85	0	3	1·21	+0·71	*	*
	Leicester	69	41	62·7	47·8	54·7	− 0·9	89	0	4	1·60	+1·07	21	18
	Cheadle ℳ	66	41	60·9	46·0	52·9	− 1·5	76	0	3	1·28	+0·65	*	*
	Churchstoke ℳ	68	38	60·6	45·1	52·3	− 2·1	72	0	4	1·57	+1·10	19	17
	Hereford ℳ	72	43	64·4	45·7	54·4	− 1·5	87	0	4	1·28	+0·80	*	*
	Cirencester	66	44	60·6	47·1	53·4	− 2·0	80	0	3	1·53	+1·01	21	19
	Oxford	66	44	60·1	47·3	53·3	− 2·6	79	0	4	1·89	+1·42	13	12
5. ENGLAND, S.	London	68	44	64·4	48·9	56·1	− 1·2	99	0	3	1·14	+0·69	24‡	21‡
	Strathfield Turgiss ℳ	70	44	64·2	48·1	55·6	+ 0·6	95	0	3	1·38	+0·96	*	*
	Dungeness	60	46	58·9	50·1	54·2	− 1·7	85	0	2	0·56	+0·16	*	*
	Hastings (St. Leonard's)	65	49	60·3	49·7	54·6	− 1·6	88	0	3	0·94	+0·54	34	30
	Southampton	68	45	63·3	49·2	55·8	− 0·5	97	0	4	1·06	+0·60	24	21
	Hurst Castle	65	48	59·6	49·4	54·1	− 1·9	85	0	3	1·01	+0·59	*	*
	Stowell ℳ	64	43	61·1	47·3	53·7	− 0·6	82	0	5	1·35	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	65	40	62·8	47·4	54·6	+ 2·9	88	0	3	0·59†	−0·46	*	*
	Glasgow	65	42	60·8	45·0	52·4	− 0·3	73	0	3	0·40	−0·20	30	25
	Ardrossan	65	40	60·0	45·4	52·2	− 1·0	71	0	4	0·45	−0·08	*	*
	Glenlee ℌ	67	35	61·9	44·0	52·3	− 0·2	72	0	4	0·44	?	*	*
	Douglas (Isle of Man)	61	46	57·7	48·5	52·8	− 0·1	76	0	3	0·48	+0·01	21	18
7. ENGLAND, N.W.	Newton Reigny (Penrith)	66	34	60·9	43·1	51·4	− 1·1	66	0	5	0·18	−0·29	46	39
	Barrow-in-Furness	65	44	60·0	48·4	53·8	− 0·9	83	0	4	0·48	0·00	*	*
	Stonyhurst	66	41	60·0	46·6	52·8	− 1·6	76	0	3	0·49	−0·21	41	35
	Blackpool ℳ	65	36	60·1	45·4	52·2	− 3·3	71	0	3	0·57	+0·08	38	33
	Manchester	67	41	61·6	47·1	53·9	− 0·5	83	0	3	1·11	+0·48	*	*
	Liverpool Obsr (Bidston)	67	43	62·1	48·1	54·6	− 0·7	88	0	3	1·32	+0·79	*	*
	Llandudno ℳ	64	42	60·3	47·1	53·2	− 2·5	78	0	4	0·86	+0·45	36	31
	Holyhead	61	48	57·0	48·9	52·7	− 1·9	75	0	3	0·98	+0·53	*	*
8. ENGLAND, S.W.	Llandovery	69	39	65·7	47·6	56·0	+ 0·9	98	0	5	0·29	−0·37	*	*
	Pembroke	60	46	56·9	48·0	52·1	− 2·8	71	0	4	0·51	+0·04	15	13
	Arlington (N. Devon)	64	43	62·1	47·3	54·2	− 0·8	85	0	3	0·71	−0·09	*	*
	Cullompton ℳ	66	42	63·7	48·6	55·6	− 0·4	95	0	3	0·39	−0·15	13	12
	Falmouth	63	47	61·8	50·2	55·6	− 0·1	95	0	4	0·26	−0·39	38	34
	Plymouth	68	47	64·4	51·3	56·4	+ 0·2	101	0	4	0·68	+0·20	24	22
	Prawle Point	60	50	57·9	50·9	54·2	− 0·5	85	0	6	0·62	?	*	*
9. IRELAND, N.	Malin Head	61	45	57·0	48·0	52·0	− 0·4	70	0	5	0·47	?	*	*
	Londonderry	76	43	71·5	49·0	59·5	+ 5·9	123	0	3	0·57	0·00	*	*
	Mullaghmore	68	47	63·0	50·4	56·3	+ 1·4	100	0	3	0·17	−0·51	*	*
	Belmullet	67	48	62·3	50·6	56·0	+ 2·6	98	0	4	0·62	?	*	*
	Markree Castle	68	42	64·0	45·5	54·1	− 0·6	85	0	3	0·20	−0·37	29	25
	Brookeborough	69	46	64·1	48·8	55·9	+ 1·0	97	0	1	0·34	?	*	*
	Armagh	68	41	62·9	47·7	54·8	+ 0·3	90	0	4	0·59	+0·12	32	28
	Donaghadee	66	46	59·6	47·7	53·2	− 0·5	78	0	4	0·51	+0·03	*	*
	Edgeworthstown	70	41	63·3	45·7	53·9	+ 0·5	83	0	1	0·11	−0·52	*	*
10. IRELAND, S.	Dublin	68	50	62·1	51·3	56·3	+ 1·6	100	0	5	0·21	−0·23	28	24
	Parsonstown	69	40	63·3	45·9	54·0	− 1·0	84	0	2	0·15	−0·38	29	25
	Kilkenny	67	41	64·6	47·1	55·2	+ 0·5	92	0	3	0·23	−0·26	*	*
	Waterford	64	40	60·9	46·3	53·1	− 3·0	78	0	3	0·59	+0·04	*	*
	Roche's Point	61	45	58·7	49·1	53·6	− 2·6	81	0	4	0·55	−0·19	*	*
	Valencia	64	49	60·1	51·6	55·6	+ 1·0	95	0	6	1·23	+0·48	22	19
	Killarney	67	42	62·7	49·3	55·5	+ 0·9	95	0	6	0·62	?	*	*
	Foynes	70	43	64·0	49·3	56·1	+ 1·7	99	0	5	0·30	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	62	48	59·9	50·9	55·1	− 0·5	92	0	4	0·19	−0·22	*	*
	Jersey (Noirmont)	65	47	61·7	50·9	55·9	− 0·7	97	0	5	0·95	+0·55	39	35

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop. At Glencarron, Ingatestone, and Braemar the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

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VOL. IV. No. 23.] *Second Series.* WEEK ENDING MONDAY, 13TH JUNE, 1887. [*Price* 4*d.* [*Annual subscription, post paid,* £1 1*s.* 2*d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 92.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	69	39	57·8	47·0	52·0	0 (average).	70	+16	0	0	506	+ 86	547	+ 37
	1. SCOTLAND, EAST ‡	70	40	64·5	49·3	56·4	3 above.	101	+26	0	− 1	686	+ 97	534	+ 41
	2. ENGLAND, N.E.	76	45	67·4	51·2	58·6	4 above.	116	+36	0	0	593	− 17	564	+ 82
	3. ENGLAND, EAST	80	41	71·4	49·4	59·6	2 above.	123	+30	0	0	672	−108	675	+168
	4. MIDLAND COUNTIES	80	41	70·8	49·3	59·3	2 above.	121	+29	0	0	707 *	−101	670	+166
	5. ENGLAND, SOUTH	81	40	67·7	49·3	57·9	1 above.	111	+12	0	0	749	−121	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	70	42	60·6	49·9	54·9	1 above.	90	+10	0	0	668	+ 17	445	+ 47
	7. ENGLAND, N.W.	74	43	63·2	51·2	56·8	1 above.	104	+19	0	0	611	− 72	501	+118
	8. ENGLAND, S.W.	78	38	66·8	49·1	57·3	1 above.	107	+16	0	0	778	− 86	405	+172
	9. IRELAND NORTH	73	44	64·3	51·4	57·4	2 above.	108	+28	0	0	794	+ 63	373	+ 23
	10. IRELAND, SOUTH	74	41	66·3	50·9	58·1	2 above.	113	+26	0	0	914	+ 21	336	+ 97
	— CHANNEL ISLANDS	75	47	65·8	51·3	58·1	1 above.	113	+18	0	0	797	−151	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 92.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	7	17	11 more.	98	− 3	17·9	+ 3·4	8	6	413	−178	21	− 9
	1. SCOTLAND, EAST ‡	4	3	3 less.	74	− 6	8·9	− 3·6	30	25	624	− 32	32	− 2
	2. ENGLAND, N.E.	1	less than ½	4 less.	70	−10	6·5	− 4·0	49	42	595 †	+ 15	30	0
	3. ENGLAND, EAST	1	less than ½	5 less.	67	−15	7·3	− 2·4	72	63	710	0	36	− 1
	4. MIDLAND COUNTIES	1	less than ½	5 less.	65	−14	8·0	− 3·2	63	55	606	− 15	31	− 1
	5. ENGLAND, SOUTH	0	less than ½	4 less.	64	−13	8·1	− 3·0	71	62	668	+ 15	34	+ 1
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	4	7	3 less.	78	−12	15·6	− 3·7	42	35	643	+ 30	33	+ 1
	7. ENGLAND, N.W.	2	1	5 less.	64	−18	9·9	− 3·1	52	44	662	+ 43	34	+ 2
	8. ENGLAND, S.W.	1	1	6 less.	67	−20	9·0	− 8·3	70	63	803	+ 92	41	+ 4
	9. IRELAND, NORTH	2	2	4 less.	74	−24	11·4	− 2·7	45	39	649	+ 24	33	+ 1
	10. IRELAND, SOUTH	1	1	5 less.	65	−19	10·9	− 5·9	57	49	791	+ 99	40	+ 4
	— CHANNEL ISLANDS	1	less than ½	4 less.	76	−18	8·3	− 5·1	69	62	905 §	+ 62	47	+ 4

General Remarks.

Weather has been dull, unsettled, and rainy in the extreme north and north-west of Scotland, but over England and Ireland the conditions have been generally fine and bright. At several of our southern and south-western stations, however, thick fogs have prevailed at times.

Temperature has been about equal to the mean in "Scotland, N." but above it in all other districts, the excess ranging from 1° over the south and west of Great Britain to 3° in "Scotland, E." and 4° in "England, N.E." The highest of the maxima, which were recorded on the 13th over the greater part of England and on irregular dates in Ireland and Scotland, varied from 81° in "England, S." and 80° in "England, E." and the "Midland Counties", to between 73° and 74° in Ireland, and 69° and 70° in Scotland. The lowest of the minima, which were registered either on the 10th or 11th, ranged from 38° in "England, S.W." and 39° in "Scotland, N.", to 45° in "England, N.E." and 47° in the "Channel Islands".

Rainfall has been considerably more than the mean in "Scotland, N." but less in all other districts. Over England and Ireland scarcely any rain has fallen.

Bright sunshine has been very deficient in the north and east of Scotland, but in all other parts of the Kingdom a decided increase is shown. The percentage of the possible amount of duration ranged from 63 in "England, E." and "England, S.W." and 62 in "England, S." and the "Channel Islands", to 35 in "Scotland, W.", 25 in "Scotland, E.", and to only 6 in "Scotland, N."

Depressions observed.—Beyond a few low pressure systems which skirted our extreme north-western and northern coasts and some others which appeared over Scandinavia no depressions were observed in our area. Over France, Germany, and all the more southern parts of our Islands the distribution of pressure was anticyclonic. Fresh South-Westerly winds were experienced over the United Kingdom as the period commenced, but subsequently light or moderate breezes from the Westward became very general.

* This value has been altered slightly owing to the receipt of further information.
† The corresponding value in last week's Report was altered slightly owing to the receipt of some arrears of observations.
‡ The values in this district are liable to alteration owing to the non-arrival of the Return from Marchmont.
§ The corresponding value in last week's Report should read "836."

A 51536. 350.—6/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

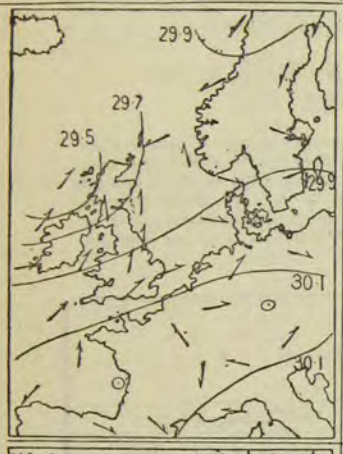
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, June 7.

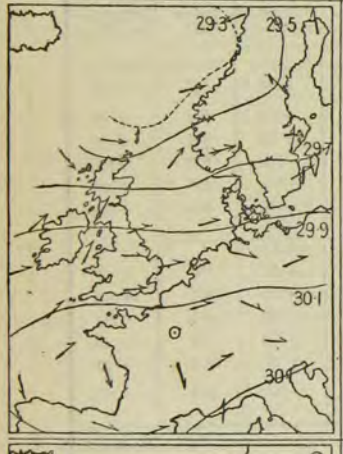
Weather fine at most of the Continental stations, but cloudy and showery over the greater part of the United Kingdom. Some improvement taking place in west later.

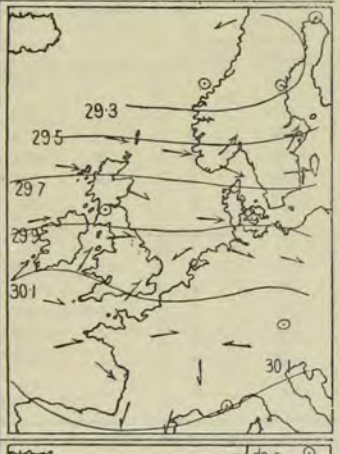
Temperature risen a little at all but the Swedish and Danish stations; readings over our Islands ranging from 62° at Yarmouth to 50° in the Shetlands. Subsequently rising to between 70° and 72° over Central England.

Wind South-Westerly or Southerly in our Islands, but Northerly in Sweden and variable in Germany and France; strong in force on many parts of our western and northern coasts. Subsequently veering to West in the north.

Sea rough on our west and south-west coasts, but moderate to smooth elsewhere.

Barometer falling at all but the German and southern French stations. Pressure highest over the southern part of the Bay of Biscay, with a large and rather deep depression off the west of Scotland. Depression moving north-eastwards later, and barometer rising in west and south-west.





Wednesday, June 8.

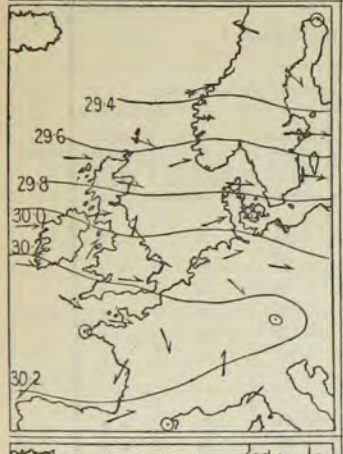
Weather rainy in Scandinavia, showery at some of the English stations, and foggy over the Channel, but fair or fine elsewhere. Improvement taking place over England towards night.

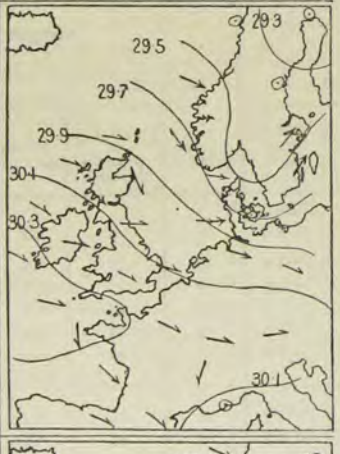
Temperature fallen a little in Scandinavia and risen in Germany and the east of France, but little changed elsewhere; readings over our Islands ranging from 64° at Yarmouth to 49° in the Shetlands. Subsequently rising to 71° at Cambridge and Yarmouth and 74° in London.

Wind variable in the south of France and Southerly in Sweden, but South-Westerly or Westerly elsewhere; light to fresh in force generally, but strong in Scandinavia and the north of Scotland.

Sea rough off the north of Scotland and rather rough at Scilly, but moderate to smooth elsewhere.

Barometer rising in our Islands, but falling at most of the Continental stations. Pressure highest over the Bay of Biscay, France, and South Germany, and depression of previous day now lying off the west of Norway. Depression subsequently moving eastwards, and rise extending to all but the Scandinavian stations.





Thursday, June 9.

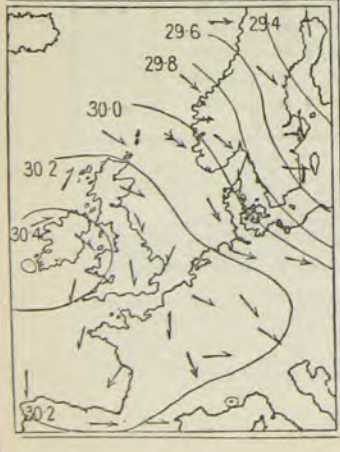
Weather rainy in the west of Norway, showery at some of our own northern stations, and foggy over the English Channel, but fair or fine elsewhere.

Temperature risen in Ireland as well as in France and Germany, but fallen slightly elsewhere; readings over our Islands ranging from 61° at Loughborough to 48° in the Shetlands.

Wind Northerly or North-Easterly over the greater part of France, but South-Westerly or Westerly elsewhere; light to fresh in force generally, but strong to a gale at some of the Scandinavian stations. Subsequently veering to the North-westward in our Islands.

Sea rather rough in the Christiania Fiord and also at Stornoway, but moderate to smooth elsewhere.

Barometer rising generally. Anticyclone lying over the Bay of Biscay, France, and the southern parts of our Islands, and Germany, with a large area of low pressure over the north of Scandinavia. Anticyclone subsequently extending northwards over our western coasts.



Friday, June 10.

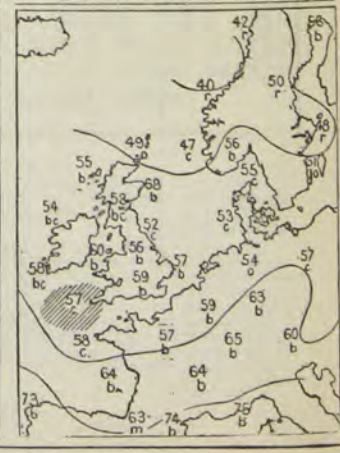
Weather fair or fine generally, but rainy in Sweden, and foggy at some of the Channel stations. Fog clearing later.

Temperature risen a little in the north and also in the extreme south of our Islands, but fallen elsewhere; readings over the United Kingdom ranging from 64° at Prawle Point to 49° in the Shetlands. Subsequently rising to 70° at Leith, Cambridge, and in London, and to 71° at Loughborough.

Wind North-Westerly over Scandinavia, Denmark, Germany, and the east of Great Britain, but North-Eastward over the Channel and Bay of Biscay, and South-Westerly on our extreme north-west coasts; strong to a gale in force in the west of Norway.

Sea rather rough at Scilly, but slight or smooth elsewhere.

Barometer rising generally. Anticyclone with readings above 30·4 ins. lying over Ireland and Wales, and depression with readings below 29·3 ins. over the Gulf of Bothnia. Anticyclone subsequently moving eastwards.



SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

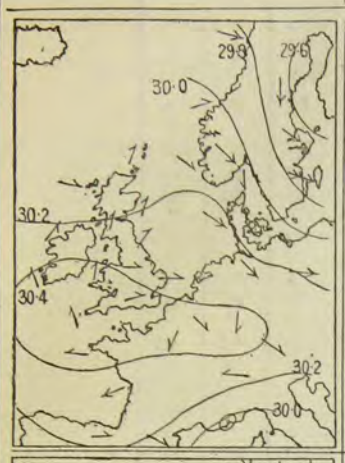
Weather

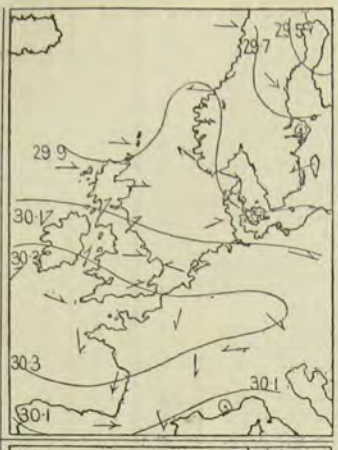
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Saturday, June 11.

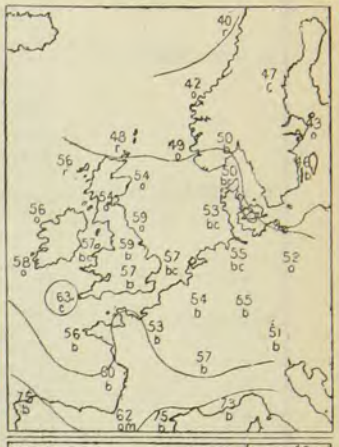
Weather fine generally, but dull in Scandinavia, Scotland, and the west of Ireland, with rain in some places. Cloudy weather subsequently extending over England.

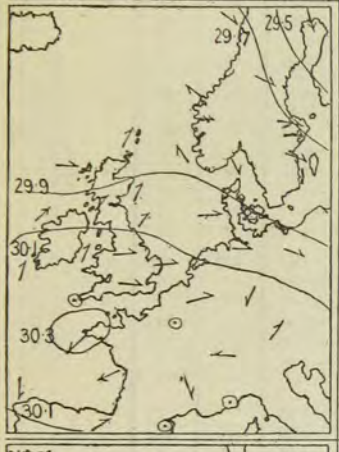
Temperature changed irregularly in our Islands, but fallen at most of the continental stations; readings over the United Kingdom ranging from 64° at Jersey to 48° in the Shetlands. Subsequently rising to 72° at Oxford and to 74° at Loughborough, Cambridge, and in London.

Wind light from South-West and West over the British Islands, but strong from North-West in Scandinavia and Denmark, and moderate from North-East and East at most of the French stations.

Sea moderate to smooth.

Barometer falling in our Islands, but rising at the continental stations. Anticyclone lying over the southern part of the United Kingdom and the north of France, with a large depression over the Gulf of Bothnia. Fall becoming general later.





Sunday, June 12.

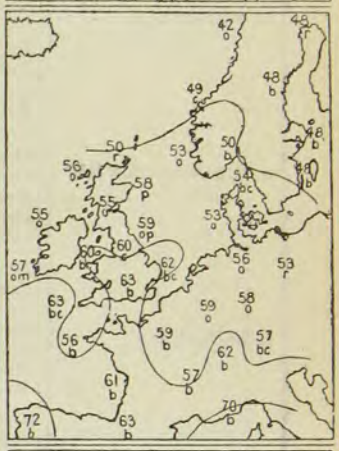
Weather dull and rainy at several of our northern stations, but fine in nearly all other localities. A little rain falling later in the west of Ireland.

Temperature risen a little in most places; readings over our Islands ranging from 63° at Scilly, Cambridge, and in London, to 50° in the Shetlands. Subsequently rising to 75° at Cambridge, 76° at Loughborough, and 77° in London.

Wind moderate from South-West and West over the greater part of our Islands, but North-Westerly in Sweden and North-Easterly at most of the French stations.

Sea rather rough at Mullaghmore, but moderate to smooth elsewhere.

Barometer falling generally. Anticyclone lying over France and the southern parts of our Islands and Germany, with a depression over the northern part of the Gulf of Bothnia and a large shallow disturbance to the northward of our Islands. Fall continuing all day.



Monday, June 13.

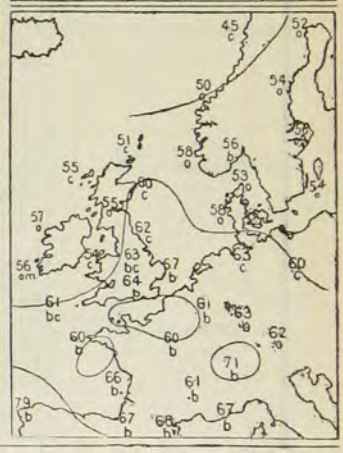
Weather fine generally, but dull in Scandinavia, Ireland, and the north-west of England. Rain falling later over Scotland and the north of Ireland.

Temperature risen generally; readings over our Islands ranging from 65° at Cambridge to 52° at Malin Head, and 51° in the Shetlands. Subsequently rising to 77° at Oxford, 79° at Loughboro, 80° at Cambridge, and 81° in London.

Wind moderate South-Westerly on our western coasts, but Westerly in the north and east as well as on the eastern shores of the North Sea, and Easterly in the west of France. Westerly wind blowing a gale at some of the Norwegian stations. Subsequently veering to North-West on our extreme north-west coasts.

Sea moderate to smooth.

Barometer rising a little over Great Britain, but falling elsewhere. Anticyclonic band extending from the mouth of the Channel to South Germany, with a depression over the north of Norway. Small shallow disturbances subsequently appearing over Ireland and Scotland.



Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	55	44	53·1	45·7	49·1	− 1·4	50	0	7	1·33	+0·85	*	*
	Stornoway	62	40	57·7	48·3	52·7	+ 1·0	75	0	6	1·03	+0·35	?	?
	Wick	63	40	60·3	46·0	52·7	+ 1·0	75	0	7	1·08	+0·68	*	*
	Lairg								0					
	Glencarron	64	41	56·8	46·8	51·5	+ 0·1	67	0	7	3·53	?	8‡	6‡
	Fort Augustus	69	39	60·9	48·3	54·2	0·0	85	0	7	1·29	?	*	*
1. SCOTLAND, E.	Nairn	68	41	63·9	49·6	56·3	+ 2·6	100	0	3	0·31	−0·12	*	*
	Aberdeen	69	45	65·6	49·4	56·9	+ 3·4	104	0	6	0·47	+0·04	32	26
	Braemar	65	41	61·2	47·6	53·9	+ 2·7	83	0	4	0·35	−0·25	28‡	23‡
	Ochtertyre	70	40	65·1	47·9	55·9	+ 1·9	97	0	3	0·11	−0·54	*	*
	Leith	70	46	66·7	52·1	58·9	+ 4·4	118	0	2	0·04	−0·39	*	*
	Marchmont													
2. ENGLAND, N.E.	Alnwick Castle	67	48	63·3	51·9	56·2	+ 2·6	99	0	0	—	−0·47	*	*
	Durham	75	45	69·8	49·9	59·2	+ 4·5	120	0	1	0·01	−0·47	48	40
	Shields	72	42	66·0	49·0	56·9	+ 3·0	104	0	1	0·01	−0·39	*	*
	Scarborough	76	49	70·6	51·8	60·6	+ 6·1	130	0	2	0·07	−0·40	43‡	41‡
	York	75	45	69·1	52·4	60·2	+ 3·8	127	0	2	0·06	−0·47	52	44
	Spurn Head	72	49	65·6	51·9	58·3	+ 3·2	114	0	1	0·01	?	*	*
3. ENGLAND, E.	Hillington	77	43	71·5	48·5	59·2	+ 3·3	120	0	1	0·01	−0·49	74	64
	Yarmouth	72	44	69·0	51·3	59·5	+ 3·2	123	0	1	0·05	−0·41	*	*
	Geldeston	76	41	71·2	49·7	59·7	+ 2·8	124	0	1	0·02	−0·39	74	65
	Cambridge	80	43	73·0	49·0	60·2	+ 2·9	127	0	1	0·02	−0·51	71	62
	Rothamsted	78	42	72·2	48·9	59·7	+ 1·4	124	0	1	0·01	−0·51	*	*
	Ingatestone	78	43	71·2	49·0	59·3	+ 1·0	121	0	0	—	−0·50	70‡	61‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	78	42	71·4	49·9	59·9	+ 3·2	125	0	0	—	−0·58	52‡	45‡
	Loughborough	79	44	72·9	50·9	61·1	+ 3·2	134	0	1	0·01	−0·54	*	*
	Leicester	79	46	72·4	50·1	60·5	+ 2·8	130	0	1	0·07	−0·53	53	46
	Cheadle	75	45	67·7	49·4	57·9	+ 2·0	111	0	1	0·03	−0·68	*	*
	Churchstoke	75	41	68·5	48·3	57·7	+ 1·6	110	0	2	0·21	−0·30	69	59
	Hereford	80	43	73·5	48·6	60·2	+ 2·8	127	0	0	—	−0·51	*	*
	Cirencester	75	42	68·7	47·0	57·1	+ 0·4	106	0	0	—	−0·57	74	65
	Oxford	77	46	70·9	50·4	59·9	+ 2·2	125	0	0	—	−0·52	67	59
5. ENGLAND, S.	London	81	44	73·4	50·3	61·1	+ 2·0	134	0	1	0·08	−0·40	68‡	60‡
	Strathfield Turgiss	80	41	73·6	47·1	59·4	+ 2·8	122	0	0	—	−0·45	*	*
	Dungeness	64	40	61·1	49·1	54·7	− 2·9	89	0	0	—	−0·40	*	*
	Hastings (St. Leonard's)	71	46	64·7	50·3	57·0	− 0·1	105	0	0	—	−0·40	70	62
	Southampton	81	46	71·9	49·9	60·8	+ 3·1	132	0	0	—	−0·47	74	65
	Hurst Castle	67	45	61·7	49·7	55·3	− 2·3	93	0	1	0·01	−0·46	*	*
	Stowell	75	43	67·2	48·7	57·3	+ 1·0	107	0	0	§0·01	?	*	*
6. SCOTLAND, W.	Laudale (Loch Sunart)	62	49	57·3	50·6	53·7	+ 0·2	82	0	7	2·47†	+1·30	*	*
	Glasgow	64	43	60·3	49·3	54·4	+ 0·1	87	0	4	0·37	−0·26	28	23
	Ardrossan	62	47	59·1	49·7	54·1	− 0·5	85	0	5	0·30	−0·27	*	*
	Glenlee	70	42	64·1	49·7	56·4	+ 2·5	101	0	4	0·30	?	*	*
	Douglas (Isle of Man)	65	45	62·4	50·4	56·0	+ 1·5	98	0	1	0·11	−0·39	55	47
7. ENGLAND, N.W.	Newton Reigny (Penrith)	69	44	64·1	50·2	56·7	+ 2·3	103	0	3	0·09	−0·41	51	43
	Barrow-in-Furness	61	50	59·0	52·0	55·3	− 0·7	93	0	2	0·03	−0·59	*	*
	Stonyhurst	69	43	63·5	49·8	56·2	+ 0·8	99	0	1	0·01	−0·76	?	?
	Blackpool	65	44	61·9	51·6	56·4	− 0·3	101	0	1	0·02	−0·48	57	49
	Manchester	74	43	66·2	50·3	57·7	+ 1·0	110	0	2	0·03	−0·67	*	*
	Liverpool Obsy (Bidston)	74	49	66·4	53·0	59·2	+ 2·5	120	0	2	0·09	−0·36	*	*
	Llandudno	70	48	64·8	52·2	58·1	+ 1·2	113	0	2	0·10	−0·33	48	41
	Holyhead	62	49	59·3	50·1	54·4	− 1·3	87	0	1	0·08	−0·49	*	*
8. ENGLAND, S.W.	Llandovery	74	38	70·4	45·9	57·3	+ 0·3	107	0	2	0·16	−0·54	*	*
	Pembroke	62	48	57·7	50·4	53·8	− 2·4	83	0	1	0·06	−0·42	60	53
	Arlington (N. Devon)	73	42	64·9	46·6	55·1	− 1·4	92	0	2	0·19	−0·71	*	*
	Cullompton	78	42	72·7	47·2	59·1	+ 1·7	120	0	0	—	−0·58	74	65
	Falmouth	70	45	66 4	50·3	57·8	+ 1·0	111	0	0	—	−0·67	77	69
	Plymouth	77	46	71·6	51·0	60·6	+ 3·0	130	0	1	0·02	−0·46	70	63
	Prawle Point	71	47	63·6	52·4	57·6	+ 1·9	109	0	2	0·06	?	*	*
9. IRELAND, N.	Malin Head	61	50	58·9	51·9	55·2	+ 1·3	92	0	4	0·74	?	*	*
	Londonderry	73	50	72·1	51·5	61·1	+ 6·1	134	0	3	0·22	−0·36	*	*
	Mullaghmore	64	48	61·9	52·4	56·8	+ 0·6	104	0	3	0·10	−0·62	*	*
	Belmullet	62	48	58·7	52·0	55·1	+ 0·4	92	0	3	0·29	?	*	*
	Markree Castle	68	44	64·0	50·2	56·6	+ 0·6	102	0	3	0·21	−0·46	48	41
	Brookeborough	67	45	65·0	50·7	57·4	+ 1·1	108	0	1	0·09	?	*	*
	Armagh	68	45	65·7	51·7	58·2	+ 2·2	113	0	1	0·10	−0·38	42	36
	Donaghadee	73	50	67·0	52·4	59·2	+ 4·0	120	0	1	0·09	−0·39	*	*
	Edgeworthstown	69	40	65·7	50·0	57·3	+ 2·1	107	0	1	0·05	−0·67	*	*
10. IRELAND, S.	Dublin	74	47	69·8	54·1	61·4	+ 5·4	136	0	1	0·06	−0·39	65	56
	Parsonstown	70	42	67·0	50·9	58·4	+ 3·3	115	0	0	—	−0·55	52	45
	Kilkenny	76	44	71·9	49·0	59·7	+ 3·7	124	0	2	0·12	−0·40	*	*
	Waterford	68	46	66·1	48·3	56·6	− 0·8	102	0	1	0·24	−0·33	*	*
	Roche's Point	65	48	63·0	51·0	56·6	− 1·1	102	0	1	0·14	−0·61	*	*
	Valencia	65	48	62·1	52·7	57·1	+ 1·4	106	0	2	0·13	−0·65	54	47
	Killarney	69	41	65·8	49·3	57·0	+ 0·9	105	0	2	0·15	?	*	*
	Foynes	68	49	64·6	51·9	57·7	+ 2·0	110	0	1	0·12	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	68	49	64·1	51·9	57·6	+ 0·9	109	0	1	0·01	−0·45	*	*
	Jersey (Noirmont)	75	47	67·4	50·7	58·5	+ 1·1	116	0	1	0·01	−0·41	69	62

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, and Braemar the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

§ Dew.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, 6, NORTH BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. IV. No. 24.] *Second Series.* WEEK ENDING MONDAY, 20TH JUNE, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

DISTRICTS. (See p. 96.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	83	38	65·5	48·8	55·6	3 above.	102	+43	0	0	608	+138	547	+ 37
1. SCOTLAND, EAST	88	39	70·6	49·7	59·2	4 above.	120	+38	0	0	806	+141	584	+ 41
2. ENGLAND, N.E.	85	42	68·8	52·2	60·0	4 above.	126	+38	0	0	719	+ 26	564	+ 82
3. ENGLAND, EAST	85	44	73·4	49·5	60·7	2 above.	131	+31	0	0	803	− 67	675	+168
4. MIDLAND COUNTIES	86	39	77·4	50·7	63·2	5 above.	148	+49	0	0	855	− 46	670	+166
5. ENGLAND, SOUTH	85	46	75·5	52·9	63·4	4 above.	150	+44	0	0	899	− 70	524	+151
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	80	40	69·9	50·1	59·3	4 above.	121	+35	0	0	789	+ 58	445	+ 47
7. ENGLAND, N.W.†	81	42	71·8	54·1	62·4	7 above.	141	+49	0	0	752	− 18	501	+118
8. ENGLAND, S.W.	89	40	75·8	54·9	64·7	7 above.	159	+61	0	0	937	− 20	405	+172
9. IRELAND NORTH	85	46	73·2	52·9	62·4	7 above.	143	+56	0	0	937	+125	373	+ 23
10. IRELAND, SOUTH	85	44	75·9	52·8	63·6	6 above.	151	+58	0	0	1065	+ 82	336	+ 97
— CHANNEL ISLANDS	80	52	71·9	58·0	64·5	6 above.	158	+57	0	0	955	− 90	170	+ 77

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 96.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	2	1	4 less.	100	− 4	18·0	+ 2·9	60	48	473	− 56	23	− 7
1. SCOTLAND, EAST	1	1	4 less.	74 *	−10	8·9 *	− 4·1	48	39	676 *	− 17	32	− 2
2. ENGLAND, N.E.	0	–	5 less.	70	−13	6·5	− 4·5	59	50	654	+ 33	31	+ 1
3. ENGLAND, EAST	0	–	5 less.	67	−18	7·3	− 2·9	89	77	799	+ 42	38	+ 1
4. MIDLAND COUNTIES	0	–	6 less.	65	−18	8·0	− 3·8	82	70	638	+ 22	33	+ 1
5. ENGLAND, SOUTH	0	–	5 less.	64	−16	8·1	− 3·5	93	81	761	+ 60	37	+ 3
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	1	1	6 less.	79	−14	15·7	+ 4·3	61	51	704	+ 47	34	+ 2
7. ENGLAND, N.W.†	0	–	6 less.	64	−21	9·9	− 3·7	71	60	733	+ 68	35	+ 3
8. ENGLAND, S.W.	0	–	7 less.	67	−24	9·0	− 9·0	99	87	902	+133	43	+ 6
9. IRELAND, NORTH	0	–	6 less.	74	−28	11·4	− 3·4	74	63	723	+ 64	35	+ 3
10. IRELAND, SOUTH	0	–	6 less.	65	−33	10·9	− 6·5	85	73	876	+142	42	+ 9
— CHANNEL ISLANDS	0	–	4 less.	76	−22	8·3	− 5·5	99	88	1004	+ 97	48	+ 4

General Remarks.

Weather has been very dry, fine, and bright in nearly all parts of the Kingdom. Rather more cloud has prevailed in Scotland than elsewhere, and on the 18th some slight rain, accompanied by thunder and lightning, was experienced at many of the Scotch stations. Thunder was also heard at some of the northern English stations.

Temperature has again been above the mean, the excess ranging from 2° in "England, E." to as much as 6° in the "Channel Islands" and "Ireland, S.", and 7° in "England, N.W." and "Ireland, N." The highest of the maxima, which were registered on rather irregular dates, varied from 80° in "Scotland, W." and the "Channel Islands", to 86° in the "Midland Counties", to 88° in "Scotland, E.", and to 89° in "England, S.W." The lowest of the minima, which were generally recorded towards the end of the period, ranged from 38° in "Scotland, N." and 39° in "Scotland, E." and the "Midland Counties" to 52° in the "Channel Islands."

Rainfall has been entirely absent from England and Ireland, and very slight in Scotland.

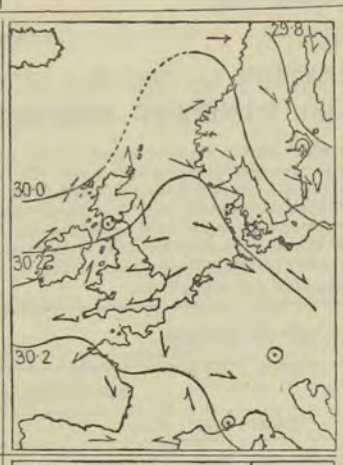
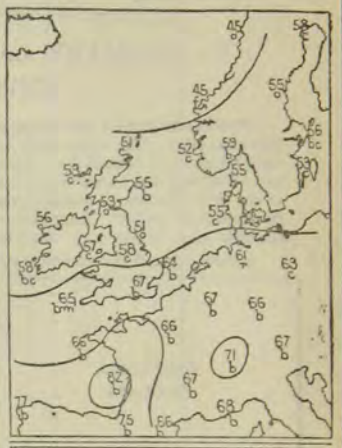
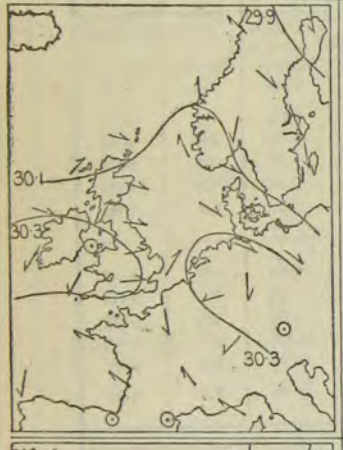
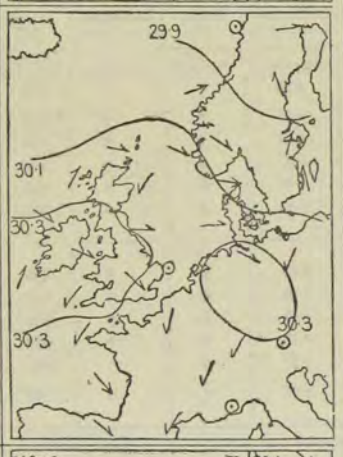
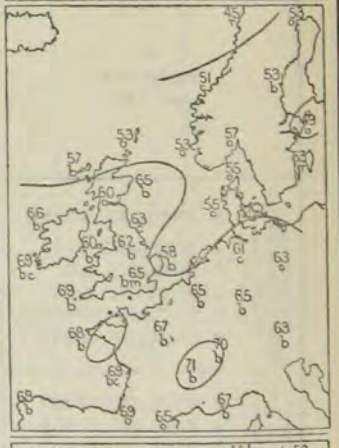
Bright sunshine shows a very general and decided increase, the percentage of the possible amount of duration ranging from 39 in "Scotland, E." and 50 in "England, N.E." to 81 in "England, S.", 87 in "England, S.W.", and 88 in the "Channel Islands." The percentage of the possible amount of duration recorded this week has been higher over the country generally than any recorded since the week ending 22nd May 1882.

Depressions observed.—During the whole of this period the distribution of barometric pressure over our Islands and their neighbourhood has been anticyclonic, and the only important depressions noticed in our area appeared over Scandinavia towards the end of the week. Light or moderate Easterly to North-Easterly winds have been most general over our Islands, but at the end of the period they had become more Northerly and increased somewhat in force.

* This value has been altered owing to the receipt of some arrears of observations.
† The values in this district are liable to alteration owing to the non-arrival of the Return from Blackpool.

A 51581. 350.—6/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

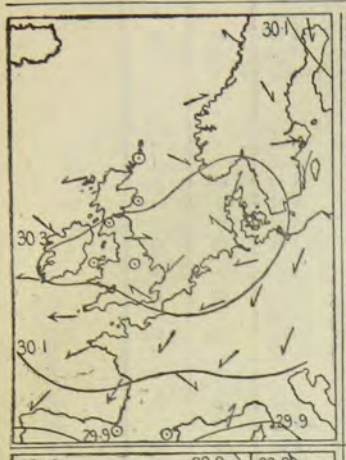
Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, June 14.** *Weather* fine generally, but dull in the north-east of England, showery in the north of Ireland, and rainy at Cuxhaven. Slight rain falling later at many of the Scotch stations. *Temperature* fallen a little in the north and east of our Islands, but risen elsewhere; readings over the United Kingdom ranging from 70° at Jersey to 51° at Sumburgh Head and Shields. Subsequently rising to 80° at Loughborough and Cambridge and 81° in London. *Wind* light Easterly over the Channel and Bay of Biscay, but Southerly in Ireland and Scotland, and Northerly in the east of England. Strong North-Westerly winds reported in Norway. *Sea* moderate at Christiansund and Scilly, but slight or smooth elsewhere. *Barometer* rising generally. Pressure highest (30·2 ins. and upwards) over England and France, and lowest (29·6 ins. and less) over the Gulf of Bothnia. Slight fall taking place in Scotland later, but no important change elsewhere.	
		**Wednesday, June 15.** *Weather* fine generally, but dull in the northern parts of Scotland and Ireland, and rainy at Bodö. Thunder and lightning occurring later at some of the French stations. *Temperature* risen in most places; readings over our Islands ranging from 73° at Prawle Point and 72° at Jersey to 52° at Sumburgh Head. Subsequently rising to 81° at Loughborough, 82° at Oxford, 84° in London, and 85° at Cambridge. *Wind* light from South-West or West in the north and east of our Islands, and from North-West on the eastern shores of the North Sea, but Easterly over the greater part of France. *Sea* slight or smooth generally. *Barometer* rising at all but our extreme northern stations. Anticlonic systems lying respectively over Germany and the west of our Islands, with relatively low pressures over the north of Sweden. Slight fall taking place later at many of the Continental stations.	
		Thursday, June 16. *Weather* cloudy in Scandinavia and Denmark, but fine elsewhere. Fine weather subsequently becoming general. *Temperature* risen a little in Ireland, but fallen elsewhere; readings over our Islands ranging from 7 ° at Prawle Point to 53° at Sumburgh Head. Subsequently rising to 80° at Nairn, Leith, and Cambridge, and 82° at Loughborough and Parsonstown. *Wind* moderate Southerly or South-Westerly over the greater part of Ireland and Scotland, and strong from North West or North in Sweden and Denmark, but light from East or North-East over the Channel and the north and east of France. *Sea* moderate to smooth. *Barometer* rising at all but our extreme western and northern stations. Large anticyclone lying over the greater part of our Islands, the North Sea, and the Netherlands, with relatively low pressure over the Gulf of Bothnia. No important change later.	
		Friday, June 17. *Weather* fine generally, but dull in Sweden and the west of Scotland. *Temperature* risen a little in our Islands and Scandinavia, but fallen in Germany, and the north of France; readings over the United Kingdom ranging from 72° at Valencia to 55° at Sumburgh Head and Stornoway. Maxima over England somewhat lower than on preceding days, but thermometer rising to 80° at Belmullet and 81° at Mullaghmore and Parsonstown. *Wind* light to fresh from East or North-East over Germany, France, and the south of our Islands, but South-Easterly in Scotland, and North-Westerly or Northerly in Sweden and Denmark. *Sea* rather rough at Scilly, but moderate or smooth elsewhere. *Barometer* rising generally. Large anticyclone lying over the North Sea and all the adjacent countries, with relatively low pressure over Spain and the Mediterranean. Slight fall taking place generally later.	

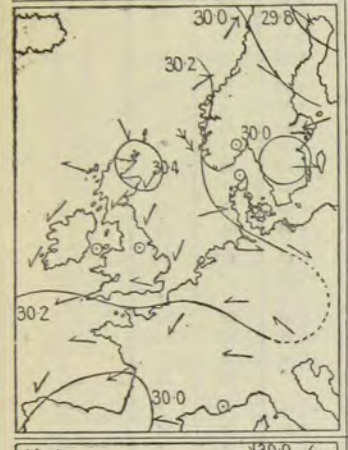
SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued*

Synoptic Charts.

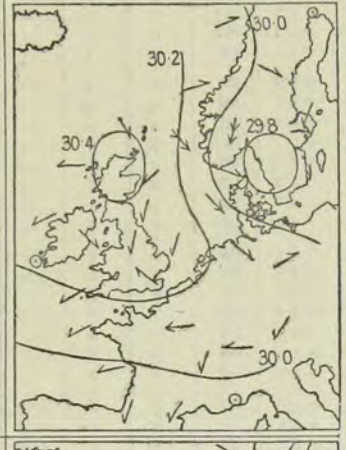
PRESSURE AND WIND.

8 a.m.





6 p.m.



Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Saturday, June 18.

Weather fine generally, but hazy at some of our western and northern stations. Thunder heard in some parts of Scotland later, and slight rain falling at Aberdeen.

Temperature fallen in many parts of our Islands and France, but risen elsewhere; readings over the United Kingdom ranging from 74° at Aberdeen to 59° at Sumburgh Head and Yarmouth. Subsequently rising to 81° at Loughborough, Liverpool, and Cambridge, 82° at Nairn, Belmullet, and Parsonstown, and 86° at Leith.

Wind moderate or fresh from East and North-East over Germany, France, the greater part of England and Ireland, but light and variable on our extreme northern coasts. Subsequently shifting to East at most of the Scotch stations.

Sea rather rough at Prawle Point, but moderate to smooth elsewhere.

Barometer rising at all but our extreme northern and the Scandinavian stations. Anticyclone still lying over the North Sea and the greater part of our Islands, with relatively low pressures over Portugal. Small shallow depression subsequently appearing off west Scotland, but new anticyclone subsequently forming off north Scotland.

Sunday, June 19.

Weather fine generally, but cloudy in the west of Scotland.

Temperature fallen generally in the north of our Islands, but risen elsewhere; readings over the United Kingdom ranging from 71° at Mullaghmore and Valencia to 50° in the Shetlands. Subsequently rising to 81° at Valencia and in London, 82° at Cambridge, and 84° at Loughborough.

Wind moderate to strong from North-West and West over Scandinavia and Denmark, but North-Easterly or Easterly over our Islands and France.

Sea rather rough at Prawle Point, but slight or smooth elsewhere.

Barometer rising a little over the United Kingdom, France, and Spain, but falling elsewhere. Anticyclone lying over the north of our Islands, with low pressures in the north of Sweden, and relatively low pressures in Spain. Slight fall taking place over England later.

Monday, June 20.

Weather rainy in the south of Sweden, and dull over central and north-eastern England, but fair or fine elsewhere. Fine weather subsequently extending to all parts of our Islands.

Temperature fallen several degrees; readings over our Islands ranging from 70° at Valencia to 52° at Sumburgh Head and York. Maxima a few degrees lower than of late.

Wind moderate from North on our north and east coasts, and strong to a gale from the same quarter over Scandinavia and Denmark, but fresh from East or North-East at our southern and the French stations.

Sea rough at Prawle Point, but moderate to smooth elsewhere.

Barometer rising generally. Anticyclone lying over the northern parts of our Islands, and somewhat deep depression over the Baltic. Depression subsequently moving eastwards, and anticyclone extending southwards over England.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	62	43	57·7	48·0	52·5	0·0	74	0	1	0·07	−0·42	*	*
	Stornoway	66	44	61·6	48·6	54·7	+ 1·0	89	0	1	0·10	−0·60	69	48
	Wick	71	40	65·1	47·6	55·7	+ 1·8	96	0	1	0·04	−0·37	*	*
	Lairg Ś	79	43	71·7	50·1	60·2	+ 8·3	127	0	2	0·12	−0·46	*	*
	Glencarron Ś	81	40	68·4	49·6	58·4	+ 6·1	115	0	2	0·29	?	‡	‡
	Fort Augustus Ś	83	38	68·3	48·9	57·9	+ 3·0	111	0	3	0·12	?	*	*
1. SCOTLAND, E.	Nairn	82	41	70·6	49·7	58·4	+ 2·2	115	0	0	—	−0·45	*	*
	Aberdeen	80	43	69·3	50·3	59·1	+ 2·6	120	0	2	0·04	−0·41		
	Braemar Ś	80	40	70·9	47·5	58·4	+ 6·2	115	0	1	0·08	−0·53	47‡	38‡
	Ochtertyre Ś	88	41	73·4	49·4	60·6	+ 5·3	130	0	1	0·61	−0·07	*	*
	Leith	86	48	69·9	52·0	60·3	+ 2·9	128	0	1	0·01	−0·42	*	*
	Marchmont Ś	84	39	69·3	49·0	58·4	+ 3·9	115	0	2	0·04	−0·57	49	40
2. ENGLAND, N.E.	Alnwick Castle	72	42	65·4	50·7	57·5	+ 2·4	109	0	0	—	−0·46	*	*
	Durham	85	47	73·0	51·6	61·6	+ 5·6	137	0	0	—	−0·49	52	44
	Shields	72	45	65·1	53·0	58·6	+ 2·9	116	0	0	—	−0·42	*	*
	Scarborough ℳ	76	48	68·4	52·8	60·1	+ 4·2	127	0	0	—	−0·50	66‡	56‡
	York	82	49	76·1	52·7	63·8	+ 6·2	153	0	0	—	−0·57		
	Spurn Head	74	51	65·0	52·4	58 3	+ 1·6	114	0	0	—	?	*	*
3. ENGLAND, E.	Hillington ℳ	83	44	76·6	47·0	60·7	+ 3·3	131	0	0	—	−0·55	84	72
	Yarmouth	69	50	64·0	53·3	58·3	+ 0·6	114	0	0	—	−0·48	*	*
	Geldeston	82	46	70·6	48·0	58·5	+ 0·6	116	0	0	—	−0·41	90	78
	Cambridge	85	45	79·4	48·6	63·3	+ 3·9	149	0	0	—	−0·55	87	76
	Rothamsted	82	48	76·0	49·2	61·7	+ 2·1	138	0	0	—	−0·52	*	*
	Ingatestone	83	47	73·8	50·8	61·5	+ 1·5	137	0	0	—	−0·42	94‡	82‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	81	39	76·4	47·3	60·8	+ 2·9	132	0	0	—	−0·60	68‡	58‡
	Loughborough	84	48	79·6	51·1	64·4	+ 5·1	157	0	0	—	−0·57	*	*
	Leicester	84	51	79·3	52·6	65·0	+ 5·6	161	0	0	—	−0·61	62	53
	Cheadle ℳ	79	47	74·3	52·6	62·7	+ 5·3	145	0	0	—	−0·72	*	*
	Churchstoke ℳ	80	44	76·9	48·3	61·6	+ 4·2	137	0	0	—	−0·53	93	79
	Hereford ℳ	86	46	79·9	51·0	64·5	+ 5·9	158	0	0	—	−0·52	*	*
	Cirencester	81	43	76·6	50·0	62·4	+ 4·5	143	0	0	—	−0·60	95	83
	Oxford	82	51	76·4	53·0	63·9	+ 4·9	153	0	0	—	−0·54	91	79
5. ENGLAND, S.	London	84	50	78·3	53·7	65·5	+ 5·1	165	0	0	—	−0·48	81‡	71‡
	Strathfield Turgiss ℳ	85	46	79·9	49·0	63·0	+ 5·0	147	0	1	0·01	−0·47	*	*
	Dungeness	74	50	67·4	54·0	60·2	+ 1·3	127	0	0	—	−0·40	*	*
	Hastings (St. Leonard's)	77	52	72·2	55·8	63·1	+ 4·5	148	0	0	—	−0·40	97	85
	Southampton	84	50	80·2	53·4	65·9	+ 6·6	167	0	0	—	−0·47	97	85
	Hurst Castle	78	48	74·1	53·0	62·8	+ 4·3	146	0	0	—	−0·48	*	*
	Stowell ℳ	81	46	76·5	51·2	63·0	+ 3·9	147	0	0	—	?	96	84
6. SCOTLAND, W.	Laudale (Loch Sunart)	80	50	70·6	53·2	61·3	+ 6·6	135	0	3	0·17	−1·05	*	*
	Glasgow	80	43	69·6	49·5	58·9	+ 3·5	118	0	1	0·04	−0·65	44	36
	Ardrossan	76	44	67·9	51·3	59·0	+ 3·3	119	0	1	0·03	−0·59	*	*
	Glenlee Ś	79	40	71·9	45·9	58·0	+ 3·1	112	0	0	—	?	*	*
	Douglas (Isle of Man)	77	47	69·5	50·4	59·3	+ 3·6	121	0	0	—	−0·52	77	65
7. ENGLAND, N.W.	Newton Reigny (Penrith)	78	42	72·5	49·2	60·0	+ 4·4	126	0	0	—	−0·52	68	57
	Barrow-in-Furness	77	50	70·3	56·0	62·7	+ 7·4	145	0	0	—	−0·57	*	*
	Stonyhurst	79	44	73·3	52·4	62·1	+ 7·2	141	0	0	—	−0·82	75	64
	Blackpool ℳ													
	Manchester	80	50	74·8	53·6	63·5	+ 7·3	151	0	0	—	−0·77	*	*
	Liverpool Obsy (Bidston)	81	52	74·0	56·6	64·7	+ 8·5	159	0	0	—	−0·46	*	*
	Llandudno ℳ	80	52	71·7	56·9	63·8	+ 7·2	153	0	0	—	−0·45	70	60
	Holyhead	71	50	66·3	54·1	59·8	+ 4·6	125	0	0	—	−0·48	*	*
8. ENGLAND, S.W.	Llandovery	89	40	82·1	49·6	64·7	+ 6·4	159	0	0	—	−0·74	*	*
	Pembroke	77	50	70·1	55·4	62·2	+ 5·0	141	0	0	—	−0·49	96	83
	Arlington (N. Devon)	82	42	76·4	54·4	64·6	+ 6·7	158	0	0	—	−0·94	*	*
	Cullompton ℳ	83	44	78·8	49·8	63·3	+ 4·9	149	0	0	—	−0·60	95	83
	Falmouth	75	52	70·9	57·5	64·7	+ 6·5	159	0	0	—	−0·68	102	90
	Plymouth	85	51	80·4	57·9	68·4	+ 9·5	185	0	0	—	−0·48	103	91
	Prawle Point	79	56	71·9	59·6	65·3	+ 8·6	163	0	0	—	?	*	*
9. IRELAND, N.	Malin Head	75	46	66·1	53·7	59·5	+ 3·8	123	0	1	0·07	?	*	*
	Londonderry	85	47	78·7	54·2	65 6	+ 9·6	165	0	0	—	−0·61	*	*
	Mullaghmore	81	49	72·1	54·7	62·8	+ 5·6	146	0	0	—	−0·75	*	*
	Belmullet	82	50	72·3	53·0	62·0	+ 5·5	140	0	0	—	?	*	*
	Markree Castle	81	46	74·4	51·5	62·2	+ 5·0	141	0	0	—	−0·72	74	63
	Brookeborough	85	47	77·9	51·7	64·9	+ 6·4	153	0	0	—	?	*	*
	Armagh	83	48	75·2	51·1	62·3	+ 4·8	142	0	0	—	−0·50	74	63
	Donaghadee	69	46	65·3	52·7	58·6	+ 2·3	116	0	0	—	−0·49	*	*
	Edgeworthstown	82	47	77·0	53·4	64·5	+ 7·6	158	0	0	—	−0·78	*	*
10. IRELAND, S.	Dublin	78	54	73·6	57·5	64·5	+ 7·2	158	0	0	—	−0·46	81	69
	Parsonstown	82	47	78·1	52·7	64·5	+ 7·4	158	0	0	—	−0·58	76	65
	Kilkenny	85	48	82·0	50·7	65·3	+ 7·9	163	0	0	—	−0·52	*	*
	Waterford	81	44	74·7	49·9	61·4	+ 2·9	136	0	0	—	−0·59	*	*
	Roche's Point	73	48	68·9	53·7	60·8	+ 1·9	132	0	1	0·01	−0 75	*	*
	Valencia	81	48	74·9	54·6	64·0	+ 7·3	154	0	0	—	−0·80	97	84
	Killarney	82	46	77·6	50·8	63·3	+ 4·7	149	0	0	—	?	*	*
	Foynes	82	49	77·5	53·3	64·6	+ 7·9	158	0	0	—	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	73	54	69·1	57·9	63·2	+ 5·5	148	0	0	—	−0·45	*	*
	Jersey (Noirmont)	80	52	74·7	58·0	65·8	+ 7·2	167	0	0	—	−0·42	99	88

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked Ś with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, 6, NORTH BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. IV. No. 25.] *Second Series.* WEEK ENDING MONDAY, 27TH JUNE, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 100.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	81	39	66·7	46·8	56·3	3 above.	100	+34	0	0	708	+169	547	+ 37
	1. SCOTLAND, EAST	88	38	72·2	47·3	58·9	3 above.	118	+30	0	0	924	+165	584	+ 41
	2. ENGLAND, N.E.	84	39	64·5	48·4	55·8	1 below.	97	+ 2	0	0	816	+ 25	564	+ 82
	3. ENGLAND, EAST	83	36	66·1	47·3	56·1	4 below.	99	− 8	0	0	902	− 76	675	+168
	4. MIDLAND COUNTIES	86	40	73·1	47·8	59·6	0 (average).	123	+18	0	0	978	− 30	670	+166
	5. ENGLAND, SOUTH	85	41	68·2	48·9	58·0	2 below.	112	− 1	0	0	1011	− 71	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	83	35	74·5	49·2	61·0	5 above.	133	+41	0	0	922	+ 97	445	+ 47
	7. ENGLAND, N.W.	80	34	72·1	50·8	60·7	3 above.	131 *	+34	0	0	883	+ 12	501	+118
	8. ENGLAND, S.W.	86	42	72·2	51·3	61·0	2 above.	133	+28	0	0	1070	+ 8	405	+172
	9. IRELAND NORTH	86	40	75·2	52·1	62·8	5 above.	146	+53	0	0	1083	+176	373	+ 23
	10. IRELAND, SOUTH	92	40	78·2	53·0	64·7	6 above.	159	+61	0	0	1224	+143	336	+ 97
	— CHANNEL ISLANDS	69	45	64·7	53·0	58·4	1 below.	115	+ 8	0	0	1070	− 83	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 100.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	1	less than ⅒	6 less.	101	− 7	18·0	+ 2·4	74	59	547	−111	25	− 5
	1. SCOTLAND, EAST	0	−	7 less.	74	−14	8·9	− 4·8	72	59	748	+ 21	34	+ 1
	2. ENGLAND, N.E.	0	−	6 less.	70	−17	6·5	− 5·1	56	47	708 *	+ 58	32	+ 2
	3. ENGLAND, EAST	0	−	6 less.	67	−22	7·3	− 3·5	49	43	848	+ 53	38	+ 1
	4. MIDLAND COUNTIES	0	−	6 less.	65	−22	8·0	− 4·4	70	61	758	+ 58	34	+ 2
	5. ENGLAND, SOUTH	0	−	5 less.	64	−20	8·1	− 3·9	60	52	821	+ 83	37	+ 3
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	0	−	6 less.	79	−18	15·6 *	− 4·9†	83	69	787	+ 95	36	+ 4
	7. ENGLAND, N.W.	0	−	6 less.	64	−25	9·9	− 4·3	83	71	817 *	+122	37	+ 5
	8. ENGLAND, S.W.	0	−	7 less.	67	−28	9·0	− 9·7	82	72	984	+171	45	+ 7
	9. IRELAND, NORTH	0	−	7 less.	74	−33	11·4	− 4·0	94	79	817	+128	37	+ 5
	10. IRELAND, SOUTH	0	−	6 less.	65	−37	10·9	− 7·1	93	80	969	+199	44	+ 8
	— CHANNEL ISLANDS	0	−	5 less.	76	−27	8·3	− 6·0	68	61	1072	+110	49	+ 5

General Remarks.

Weather has continued fine and dry in all parts of the Kingdom. Over all the more western districts the sky was brilliantly clear, but over the eastern counties of England rather more cloudy conditions prevailed.

Temperature has again been above the mean over Scotland and in all the "Grazing" districts, but in the eastern, central, and southern districts of England it has been either just equal to or a few degrees below the normal value for the time of year. The highest of the maxima, which were recorded on somewhat irregular dates, varied from 69° in the "Channel Islands" to 80° in "England, N.W.", 86° in the "Midland Counties", "England, S.W.", and "Ireland, N.", 88° in "Scotland, E.", and 92° in "Ireland, S." (at Kilkenny). On the south and south-east coasts of England the maxima were generally low, the values on some days being no higher than 55° to 58°. The absolute minima, which were recorded at most stations either on the 21st or 27th, were low for the season, the readings ranging from 34° in "England, N.W." to 42° in "England, S.W." and 45° in the "Channel Islands." During the early morning of the 27th the thermometer on the grass fell to below freezing point at some of our south-eastern stations.

Rainfall has again been entirely absent from England and Ireland, and extremely slight in Scotland.

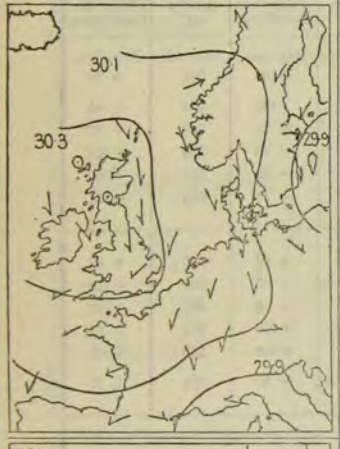
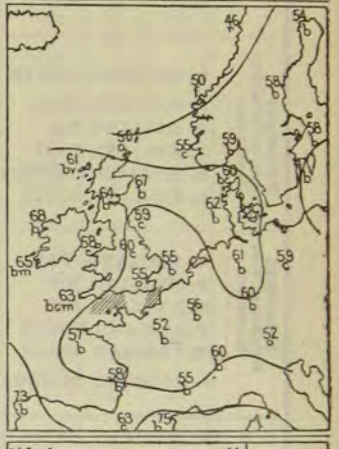
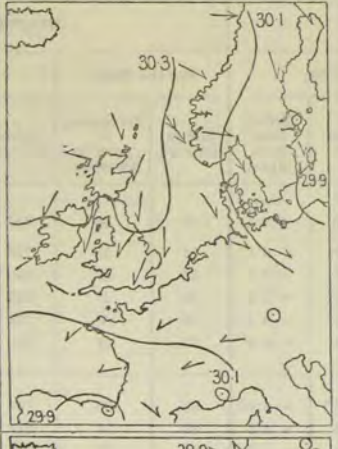
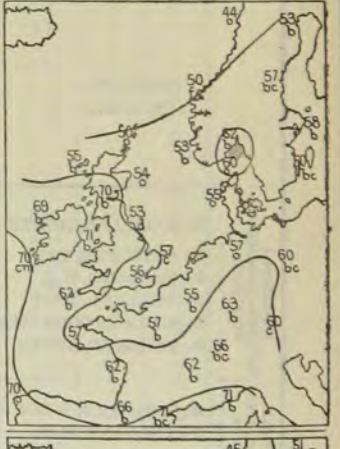
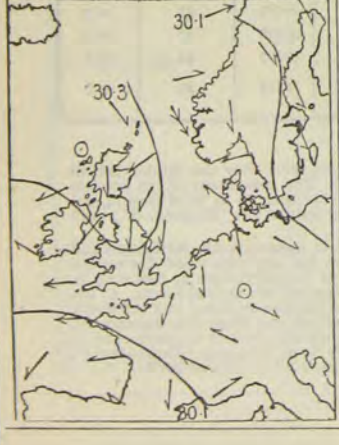
Bright sunshine shows a decrease from that of last week over the greater part of England, and an increase in Ireland and Scotland. The percentage of the possible amount of duration was still very high generally, varying from 79 to 80 in Ireland, and from 59 to 69 in Scotland, while over England it ranged from 43 (in "England, E.") to 72 (in "England, S.W.")

Depressions observed.—The conditions of barometric pressure over our Islands and their neighbourhood has continued anticyclonic, and the only important depressions which appeared in our area occurred either far to the northward of Scotland, in Scandinavia, or over the extreme south-east of France and the Gulf of Genoa. At the end of the period, however, some small shallow disturbances were found over the North Sea and the more western parts of the United Kingdom, but these soon disappeared. The winds experienced over our Islands have been generally light or moderate, and at times variable in direction; but on most days they were Northerly (North-West to North-East) and occasionally blew freshly in the Channel and on our east coasts.

* This value has been altered slightly owing to the receipt of further observation.
† The corresponding value for the week ending June 6th, should be "−3·4" and that for last week "−4·3."

A 51634. 350.—6/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		Tuesday, June 21. *Weather* fine generally, and bright, with very dry air. Slight showers in some parts of Scandinavia and the Baltic. *Temperature* not high for time of year, the maxima being nearly all below 75°, and the values at night decidedly low. *Wind* Northerly to Easterly; light at our northern and western stations; fresh in the east and south. Strong Northerly and North-Easterly winds over the Baltic, with gales at some stations. *Sea* moderate to rather rough in the south and east. *Barometer* risen generally; anticyclone, with maximum readings of 30·4 ins. and more, still lying over our Islands, its central area covering the northern counties.	
		**Wednesday, June 22.** *Weather* very little changed; still fine and dry generally, but dull at first at several English stations. *Temperature* slightly higher than on 21st; maxima very little below 80° in some parts of Scotland, but night again rather cold. *Wind* continuing North-Easterly (North to East), and blowing more briskly in the south and east than elsewhere. No important change during the day. *Sea* rather rough in the south-east. *Barometer* slightly lower over England and France than on 21st, but unchanged in west and north. Anticyclone still maintained, but its central area rather more complex than hitherto; a ridge extending south-eastwards across the Netherlands to Germany later.	
		**Thursday, June 23.** *Weather* still fine in most places, but gloomy and dull in morning in the east and south-east, with cold wet mists in some places. Thunderstorms in south-west of France later. *Temperature* decidedly lower than of late in morning over Great Britain, and nights very cold for time of year. Air warm in Ireland, especially over the central and western parts. Maximum at Parsonstown 88°. Local variations, owing to sea breeze, very considerable. *Wind* very little altered (Northerly to Easterly) but less strong in the south than of late. Still strong over Scandinavia, but less generally Northerly. *Sea* moderate to smooth. *Barometer* still highest in the north and north-west, lowest over the Baltic. Anticyclone decreasing slightly in intensity, but change very gradual.	
		**Friday, June 24.** *Weather* still dry except in north of Norway and south-west of France, dull and cold over England, with wet mists in some places; fine and warm in Ireland. *Temperature* again rising to above 80° in central and western parts of Ireland, but scarcely exceeding 60° in east of England, and becoming very low at night. *Wind* nearly calm in Scotland, Northerly to Easterly over Ireland and England, fresh in the Channel and on our east coast, light to moderate elsewhere. Strong to a gale over Scandinavia, but very variable in direction. *Sea* moderate to smooth generally. *Barometer* highest in north and north-east, lowest over Baltic, north of Germany, and north of Spain; gradients slight but more pronounced than on 23rd. Shallow depression over Spain moving northwards, another approaching Lapland.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

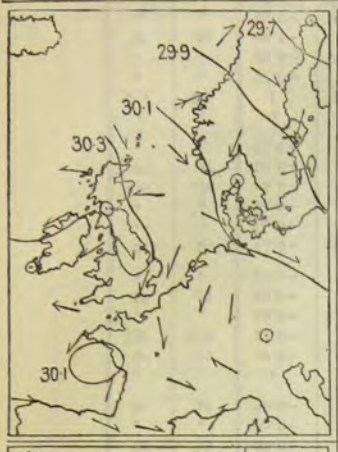
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Saturday, June 25.

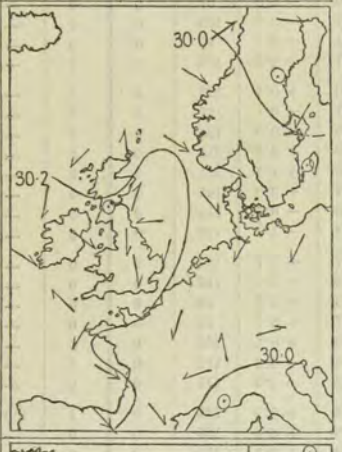
Weather very similar to that of 24th, but finer in Scotland, dull, gloomy, and cold over England, fine, bright, and warm in Ireland. No rain in British Islands, but a good deal over the Continent, and severe thunderstorms in France.

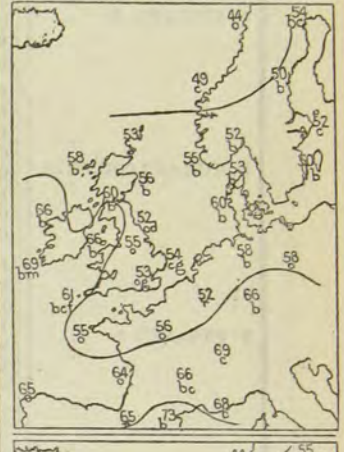
Temperature rising to above 80° over Ireland and to upwards of 70° in the north of England, but only 60° to 68° in the south and east.

Wind North-Easterly over England, Ireland, and Scotland; South-Westerly, strong to a gale, in Norway; Westerly over Spain and south of France.

Sea moderate in south and east, smooth or nearly so elsewhere.

Barometer rising over southern Europe, falling slightly in our Islands and quickly in Norway. Depression forming over Sweden; the shallow depression in the south moving eastwards to France from the Bay of Biscay.





Sunday, June 26.

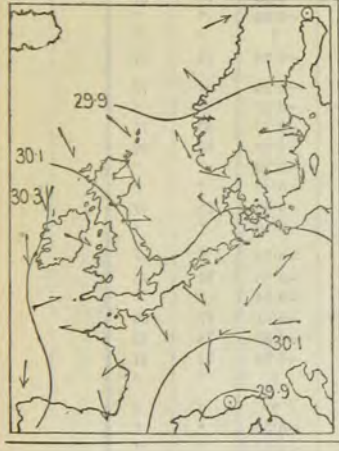
Weather still warm and bright in Ireland, very dull over Great Britain, and very cold for time of year. Much rain locally over France and Scandinavia, with severe thunderstorms.

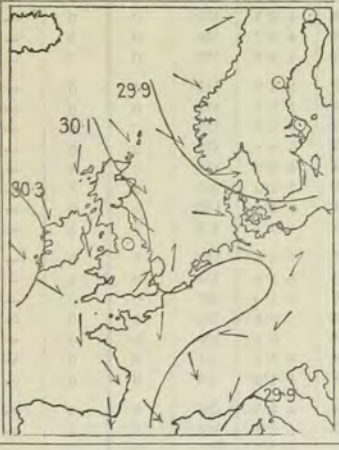
Temperature again exceeding 80° over central Ireland, but reaching only 60° in London and at Spurn Head; following night very sharp; three degrees of frost on grass in Cambridge, and hoar frost in parts of Essex.

Wind calm in Ireland and Scotland, North-Easterly over England, Northerly, strong to a gale, in Sweden, variable over France; becoming Southerly in east of Scotland later.

Sea very little disturbed in most places; moderate in east.

Barometer falling north, rising south; depression over Gulf of Bothnia; and shallow local disturbance appearing over Scotland later.





Monday, June 27.

Weather fine over Ireland and England, and much warmer and "closer" over England than of late, dull and unsettled in Scotland, with some rain. The unsettled appearance subsequently travelling southwards, but without the rain.

Temperature low at first, but rising later on to between 80° and 85° over England, then falling abruptly with a return of northerly wind.

Wind varying greatly; at times Southerly and South-Westerly in England, but very light, then shifting to North-West again. North-Easterly over the south of France.

Sea smooth in nearly all places.

Barometer unsteady; subsequently rising in the west and north. Depression over Scandinavia, and shallow subsidiaries over North Sea and our Islands; all passing away to south-eastwards later, and pressure recovering.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⟹ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	56	45	54·6	47·4	50·8	− 1·4	62	0	2	0·05	−0·35	*	*
	Stornoway	70	40	63·4	46·1	55·2	+ 1·9	92	0	0	—	−0·69	74	59
	Wick	69	40	62·9	46·1	53·9	+ 0·4	83	0	2	0·04	−0·47	*	*
	Lairg ℌ	81	36	75·0	45·1	59·0	+ 6·0	119	0	0	—	−0·70	*	*
	Glencarron ℌ	81	42	74·2	48·0	60·2	+ 7·0	127	0	2	0·03	?	? ‡	? ‡
	Fort Augustus ℌ	78	39	70·1	48·2	58·4	+ 2·7	115	0	0	—	?	*	*
1. SCOTLAND, E.	Nairn	79	41	70·3	47·9	58·3	+ 2·6	114	0	0	—	−0·60	*	*
	Aberdeen	75	42	67·0	47·6	56·6	+ 0·5	102	0	0	—	−0·66	67	54
	Braemar ℌ	82	38	77·9	44·9	60·3	+ 6·5	128	0	0	—	−0·70	82‡	67‡
	Ochtertyre ℌ	88	46	80·6	48·4	63·4	+ 6·9	150	0	0	—	−0·76	*	*
	Leith	78	43	67·9	48·7	57·6	+ 0·8	109	0	0	—	−0·62	*	*
	Marchmont ℌ	75	41	69·7	46·1	57·2	+ 1·6	106	0	1	0·02	−0·77	66	55
2. ENGLAND, N.E.	Alnwick Castle	69	49	62·7	50·0	55·9	− 0·2	97	0	0	—	−0·68	*	*
	Durham	82	39	69·0	46·4	56·9	− 0·1	104	0	0	—	−0·63	52	43
	Shields	72	46	62·4	49·6	55·6	− 1·2	95	0	0	—	−0·60	*	*
	Scarborough ℌ	73	45	59·6	48·2	53·5	− 3·6	81	0	0	—	−0·61	61‡	52‡
	York	84	41	73·0	46·7	58·9	+ 1·2	118	0	0	—	−0·58	56	47
	Spurn Head	72	47	60·0	49·4	54·3	− 3·4	86	0	0	—	?	*	*
3. ENGLAND, E.	Hillington ℌ	80	37	65·1	46·7	55·3	− 3·1	93	0	0	—	−0·62	46	39
	Yarmouth	67	46	62·0	50·0	55·6	− 3·4	95	0	0	—	−0·60	*	*
	Geldeston	78	41	64·2	48·6	55·9	− 2·8	97	0	0	—	−0·55	45	39
	Cambridge	83	36	69·4	45·7	56·7	− 3·9	103	0	0	—	−0·52	57	50
	Rothamsted	80	38	67·2	46·5	56·1	− 4·5	99	0	0	—	−0·60	*	*
	Ingatestone	79	42	68·4	46·5	56·7	− 4·5	103	0	0	—	−0·54	48‡	42‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	81	45	73·0	47·9	59·6	+ 0·4	123	0	0	—	−0·62	65‡	56‡
	Loughborough	81	42	74·4	47·7	60·1	− 0·1	127	0	0	—	−0·52	*	*
	Leicester	83	43	73·6	47·8	59·8	− 0·6	125	0	0	—	−0·62	56	48
	Cheadle ℌ	76	41	71·5	47·8	58·9	+ 0·5	118	0	0	—	−0·70	*	*
	Churchstoke ℌ	82	40	74·9	45·7	59·3	+ 1·3	121	0	0	—	−0·56	85	73
	Hereford ℌ	86	46	76·9	50·3	62·7	+ 3·0	145	0	0	—	−0·52	*	*
	Cirencester	82	42	71·3	47·0	58·3	− 0·6	114	0	0	—	−0·68	78	68
	Oxford	81	43	69·3	48·1	58·1	− 1·7	113	0	0	—	−0·57	67	58
5. ENGLAND, S.	London	82	43	70·6	49·6	59·7	− 1·7	124	0	0	—	−0·48	48‡	42‡
	Strathfield Turgiss ℌ	85	41	73·5	45·4	58·5	− 0·8	116	0	0	—	−0·49	*	*
	Dungeness	67	44	61·1	50·3	55·3	− 4·6	93	0	0	—	−0·40	*	*
	Hastings (St. Leonard's)	69	46	62·8	49·6	55·7	− 3·7	96	0	0	—	−0·40	50	44
	Southampton	77	45	72·1	49·4	60·0	+ 0·1	126	0	0	—	−0·48	70	61
	Hurst Castle	72	46	67·4	51·3	58·8	− 0·5	116	0	0	—	−0·48	*	*
	Stowell ℌ	76	44	70·1	47·0	57·8	− 0·9	111	0	0	—	?	70	61
6. SCOTLAND, W.	Laudale (Loch Sunart)	77	47	70·9	49·8	59·6	+ 3·8	123	0	1	0·01†	−1·24	*	*
	Glasgow	83	41	76·1	48·5	61·3	+ 4·9	135	0	0	—	−0·72	74	61
	Ardrossan	81	45	73·6	51·7	61·9	+ 5·3	139	0	0	—	−0·64	*	*
	Glenlee ℌ	83	35	78·0	46·6	61·2	+ 5·2	134	0	0	—	?	*	*
	Douglas (Isle of Man)	81	40	74·0	49·4	60·8	+ 4·2	132	0	0	—	−0·55	91	77
7. ENGLAND, N.W.	Newton Reigny (Penrith)	80	34	75·5	44·4	58·9	+ 2·4	118	0	0	—	−0·54	87	73
	Barrow-in-Furness	76	47	70·7	54·0	61·8	+ 3·9	139	0	0	—	−0·62	*	*
	Stonyhurst	79	43	73·7	49·9	61·0	+ 3·6	133	0	0	—	−0·89	83	70
	Blackpool ℌ	76	39	71·8	46·5	58·3	− 0·2	114	0	0	—	−0·57	85	72
	Manchester	77	43	73·6	50·6	61·3	+ 2·2	135	0	0	—	−0·80	*	*
	Liverpool Obsy (Bidston)	76	47	72·1	53·4	62·1	+ 2·9	141	0	0	—	−0·49	*	*
	Llandudno ℌ	74	49	70·1	53·6	61·3	+ 2·6	135	0	0	—	−0·49	78	67
	Holyhead	71	51	68·9	53·9	60·9	+ 3·2	132	0	0	—	−0·49	*	*
8. ENGLAND, S.W.	Llandovery	86	42	81·1	48·6	63·7	+ 4·4	152	0	0	—	−0·78	*	*
	Pembroke	77	54	69·0	55·6	61·8	+ 3·6	139	0	0	—	−0·50	86	75
	Arlington (N. Devon)	76	46	73·3	48·7	60·1	+ 1·0	127	0	0	—	−0·98	*	*
	Cullompton ℌ	82	43	75·1	46·3	59·7	0·0	124	0	0	—	−0·61	77	68
	Falmouth	73	50	66·1	53·2	59·2	0·0	120	0	0	—	−0·68	74	65
	Plymouth	82	49	75·3	53·7	63·8	+ 3·8	153	0	0	—	−0·50	91	81
	Prawle Point	74	51	65·6	53·0	58·9	+ 1·2	118	0	0	—	?	*	*
9. IRELAND, N.	Malin Head	67	51	64·0	55·0	59·2	+ 3·5	120	0	0	—	?	*	*
	Londonderry	85	47	81·1	51·5	65·3	+ 8·5	163	0	0	—	−0·65	*	*
	Mullaghmore	80	49	73·9	54·4	63·5	+ 5·2	151	0	0	—	−0·78	*	*
	Belmullet	80	54	74·7	57·3	65·4	+ 8·8	164	0	0	—	?	*	*
	Markree Castle	83	40	76·4	47·4	60·9	+ 2·4	132	0	0	—	−0·73	91	77
	Brookeborough	86	44	80·6	48·6	63·5	+ 5·0	151	0	0	—	?	*	*
	Armagh	83	43	77·8	49·5	62·7	+ 4·2	145	0	0	—	−0·45	96	81
	Donaghadee	77	50	69·0	53·9	60·9	+ 3·9	132	0	0	—	−0·50	*	*
	Edgeworthstown	84	46	78·9	51·0	64·0	+ 6·0	154	0	0	—	−0·80	*	*
10. IRELAND, S.	Dublin	76	51	73·4	55·4	63·8	+ 5·4	153	0	0	—	−0·47	98	84
	Parsonstown	85	46	80·0	50·0	64·0	+ 6·0	154	0	0	—	−0·60	92	79
	Kilkenny	92	46	85·1	51·7	67·2	+ 9·7	176	0	0	—	−0·53	*	*
	Waterford	87	47	79·4	52·4	65·0	+ 5·5	161	0	0	—	−0·60	*	*
	Roche's Point	80	51	73·3	57·3	64·7	+ 5·1	159	0	0	—	−0·75	*	*
	Valencia	79	52	74·7	53·7	63·5	+ 5·9	151	0	0	—	−0·84	89	77
	Killarney	84	40	79·3	48·4	62·8	+ 4·3	146	0	0	—	?	*	*
	Foynes	85	49	80·1	54·7	66·5	+ 8·9	172	0	0	—	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	68	45	63·9	53·3	58·2	− 0·5	113	0	0	—	−0·47	*	*
	Jersey (Noirmont)	69	50	65·4	52·7	58·6	− 1·0	116	0	0	§0·01	−0·44	68	61

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked ℑ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street. § Wet fog.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 26.] *Second Series.* WEEK ENDING MONDAY, 4TH JULY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 104.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	77	42	65·5	51·0	57·8	4 above.	111	+39	0	0	819	+196	547	+ 37
	1. SCOTLAND, EAST	82	40	73·5	52·1	62·1	6 above.	141	+47	0	0	1065	+197	584	+ 41
	2. ENGLAND, N.E.	85	47	73·3	55·1	63·5	5 above.	151	+49	0	0	967	+ 61	564	+ 82
	3. ENGLAND, EAST	89	45	76·5	52·7	63·8	3 above.	153	+39	0	0	1055	− 53	675	+168
	4. MIDLAND COUNTIES	89	45	78·5	52·6	64·6	4 above.	158	+46	0	0	1136	0	670	+166
	5. ENGLAND, SOUTH	89	43	75·8	53·1	63·6	3 above.	151	+31	0	0	1162	− 54	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	78	47	68·8	51·7	59·7	3 above.	124	+27	0	0	1046	+109	445	+ 47
	7. ENGLAND, N.W.	82	46	70·9	53·8	61·8	3 above.	139	+35	0	0	1022	+ 33	501	+118
	8. ENGLAND, S.W.	86	44	74·0	53·0	62·6	3 above.	144	+33	0	0	1114	+ 32	405	+172
	9. IRELAND, NORTH	80	46	79·7	54·2	61·5	3 above.	137	+40	0	0	1220	+203	373	+ 23
	10. IRELAND, SOUTH	82	46	73·7	54·5	63·5	4 above.	151	+47	0	0	1375	+179	336	+ 97
	— CHANNEL ISLANDS	81	52	70·5	56·7	63·1	3 above.	148	+35	0	0	1218	− 55	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 104.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	4	3	3 less.	105	− 6	18·3	+ 2·1	19	15	566	−129	24	− 6
	1. SCOTLAND, EAST	1	3	3 less.	75	−16	9·2	− 5·1	49	40	797	+ 22	34	+ 1
	2. ENGLAND, N.E.	1	3	2 less.	71	−19	6·8	− 5·3	50	43	758	+ 67	32	+ 2
	3. ENGLAND, EAST	1	1	4 less.	68	−23	7·4	− 3·9	73	63	921	+ 71	40	+ 3
	4. MIDLAND COUNTIES	1	2	4 less.	66	−24	8·2	− 4·8	66	58	824	+ 77	36	+ 3
	5. ENGLAND, SOUTH	1	less than ½	4 less.	65	−21	8·1	− 4·4	67	59	888	+ 97	38	+ 3
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	2	3	5 less.	81	−20	15·9	− 5·2	60	51	847	+117	36	+ 4
	7. ENGLAND, N.W.	1	less than ½	6 less.	65	−27	9·9	− 5·0	68	58	885	+149	38	+ 6
	8. ENGLAND, S.W.	0	less than ½	7 less.	67	−31	9·0	−10·4	87	77	1071	+213	46	+ 9
	9. IRELAND, NORTH	2	4	3 less.	76	−36	11·8	− 4·3	29	25	846	+128	36	+ 5
	10. IRELAND, SOUTH	1	2	5 less.	66	−40	11·1	− 7·6	49	42	1018	+211	44	+ 9
	— CHANNEL ISLANDS	1	less than ½	4 less.	77	−29	8·3	− 6·5	78	70	1150	+ 35	50	+ 5

General Remarks.

Weather continued very fine and dry in almost all parts of the Kingdom, until nearly the close of the period. In the extreme north and north-west of Scotland, however, the sky was generally cloudy or overcast, with occasional slight falls of rain. By the end of the week the unsettled conditions extended to almost all our coasts, and brought some rain to all our northern districts and some showers to most of our southern and south-eastern stations. In a few places slight thunder and lightning were experienced.

Temperature has been above the mean in all districts, the excess ranging from 2° in most of the English districts to 6° in "Scotland, E." The highest of the daily maxima (which were registered on the 3rd or 4th in England, and earlier in the week over Ireland and Scotland) varied between 77° and 82° in Scotland, 80° and 82° in Ireland, and 82° and 89° over England. The lowest of the daily minima, which were recorded on somewhat irregular dates, ranged from 40° in "Scotland, E." and 43° in "England, S." to 52° in the "Channel Islands".

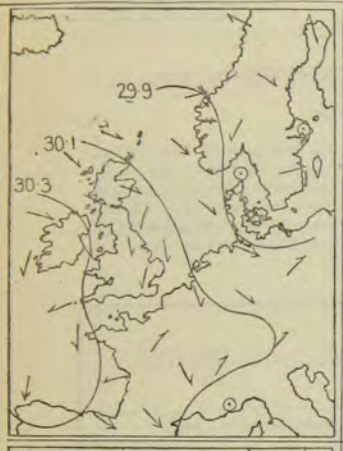
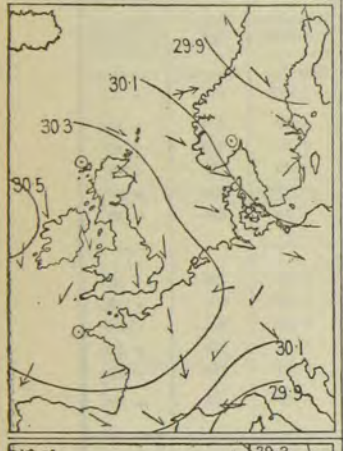
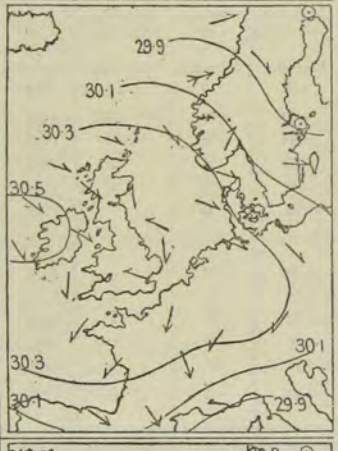
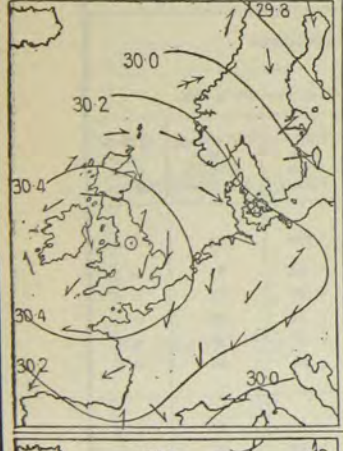
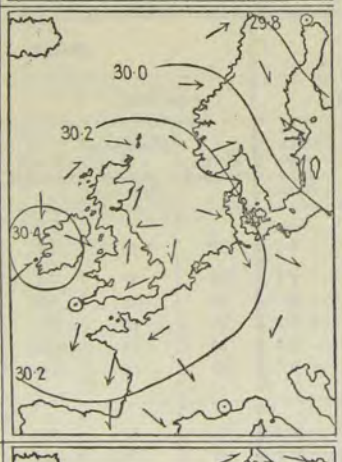
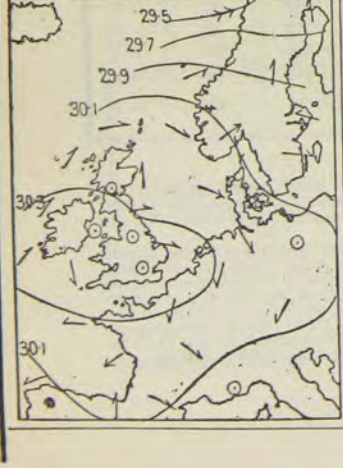
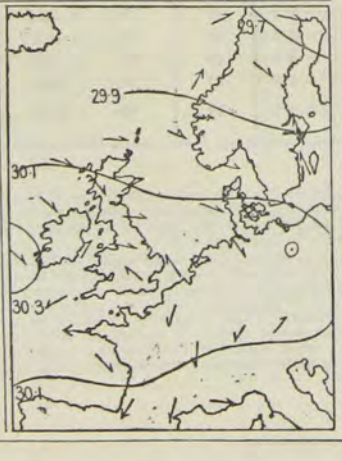
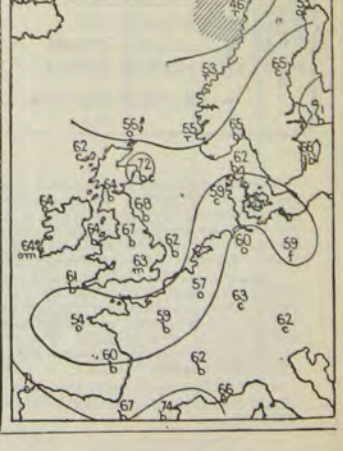
Rainfall has again been less than the mean in all districts. It was almost entirely absent during the greater part of the week, but at its close was rather general, though not heavy.

Bright sunshine has been less prevalent than of late in most districts, especially over Ireland and Scotland. The percentage of the possible amount of duration varied from 15 in "Scotland, N." and 25 in "Ireland, N.", to 63 in "England, E.", 70 in the "Channel Islands", and 77 in "England, S.W."

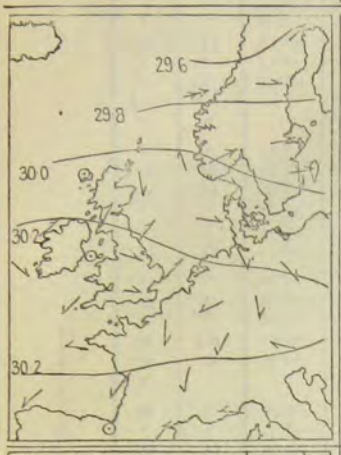
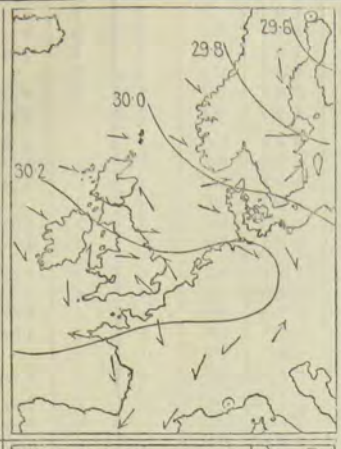
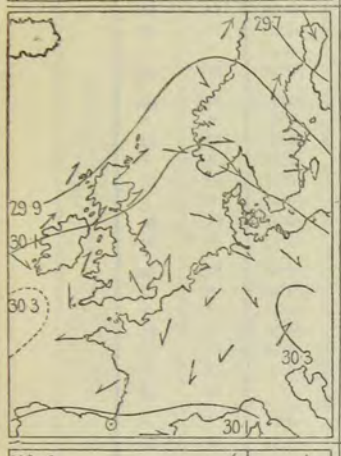
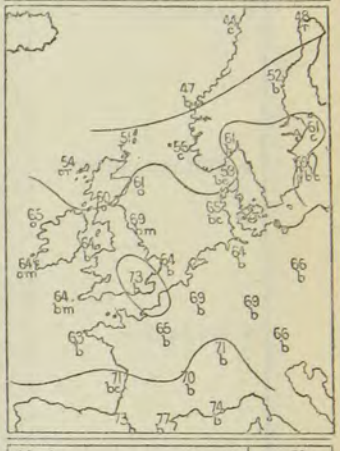
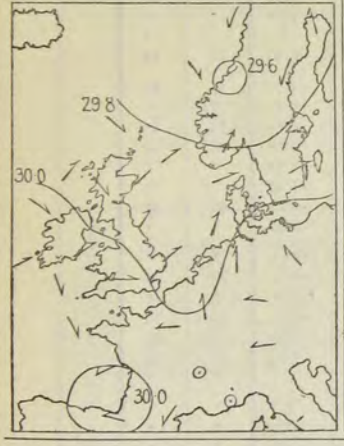
Depressions observed.—The distribution of barometric pressure over the United Kingdom having been anticyclonic until almost the end of the period, the depressions observed were few in number and passed mainly over the north of Scandinavia. Some shallow systems, however, appeared over the United Kingdom, and moved mostly from the north-westward. Light Northerly (North-West to North-East) breezes were most general on our coasts during the prevalence of the anticyclone, but as the depressions appeared the wind backed to the Westward or South-Westward, with rain in all the more northern parts of the Kingdom and showers in most of the southern districts.

A 51692. 350.—7/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, June 28.** *Weather* cloudy or overcast in many places, clear on our southern coasts and over France, and more settled looking than of late. Showery over Germany, but over our Islands rain in a measurable amount occurred at Sumburgh Head only. *Temperature* fallen considerably; the daily maxima not exceeding 74° at any of our own stations. *Wind* Northerly (North-West to North-East), and very light in force. Sea breezes experienced in the north-east and south later. *Sea* smooth or nearly so on all our coasts. *Barometer* rising slowly; depressions of yesterday disappearing to the eastward, and anticyclonic conditions again prevailing, especially in the west.	
		**Wednesday, June 29.** *Weather* in our Islands again fair, except in extreme north, where slight rain fell, but remaining cool and in many places cloudy. *Temperature* inclined to recover a little, but change scarcely appreciable as a whole. Highest of the daily maxima 77° at Cambridge and 74° at Loughborough. *Wind* very light and somewhat variable; chiefly North-Westerly and Westerly in the north, Northerly in the east, and North-Easterly to Easterly in the south. Southerly airs in the south of Ireland. *Barometer* inclined to fall a little during day. Anticyclone's central area lying over Ireland, and eastern part of system covering Great Britain, Belgium, and north of France. Centre moving south-eastwards.	
		**Thursday, June 30.** *Weather* still fair except in the north of Scotland, where slight rain fell. Hazy in many places, with heavy dew inland. *Temperature* fallen in the south, little changed elsewhere. Daily maxima rising to 79° at some northern stations, but not so high in south. *Wind* very light and anticyclonic with us, moderate North-Easterly over France. No change later. *Sea* smooth or nearly so on all our coasts. *Barometer* high; dominant system anticyclonic; gradients very slight. Highest readings exceeding 30·4 ins. Beginning to fall a little during the day.	
		**Friday, July 1.** *Weather* fine generally, but still hazy in places and becoming warmer than of late over England. A little rain in the north and north-west. *Temperature* rising to between 78° and 82° over England during the day and to between 80° and 90° in many parts of France. *Wind* light and anticyclonic (Easterly in south, Westerly in north), but the Westerly wind spreading southwards, while the Easterly died down. *Sea* smooth generally. *Barometer* falling slowly. Anticyclone's centre moving south-eastwards and south-westwards. System afterwards extending eastwards to Germany.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, July 2.** *Weather* again fine except in the extreme north where very slight rain fell again. Cloudiness increasing in west and north-west. *Temperature* increasing both over England and the Continent ; falling decidedly in Scotland. Daily maxima over England increasing to between 83° and 86°. Following night warm. *Wind* still Easterly in France—calm over the south of England, Westerly (North-West to South-West) in the north. Light generally, but a gale at Christiansund. *Sea* still smooth on nearly all our coasts. *Barometer* highest in south-west and south, lowest in north ; rising very slightly in most places. Anticyclonic band lying across the south of British Isles, Belgium, and North Germany.	
		**Sunday, July 3.** *Weather* becoming very showery in Scotland and north of Ireland ; fine generally over England, and very warm. Sky looking unsettled in London later. Thunder in places. *Temperature* very high ; daily maxima 85° to 89° at the English stations, much less high in Ireland and Scotland. *Wind* calm or very variable in the Channel and over England, Southerly to Westerly in the west and north. North-Easterly in France. *Sea* very little disturbed. *Barometer* still highest in a band lying over the south of our Islands, the Netherlands, and Germany. Depression appearing in north and moving eastwards.	
		**Monday, July 4.** *Weather* less settled than of late, and becoming still colder in the north and west, but very warm and close over England. Thunderstorms locally, but not severe. *Temperature* rising to between 83° and 89° over England, and still higher in France and Germany. Fall of temperature in north, spreading southwards later. *Wind* extremely variable in direction and light in force ; chiefly Westerly and North-Westerly in the north, and becoming North-Westerly in most places later. *Sea* very little disturbed. *Barometer* falling generally. Depression appearing over Scandinavia, and shallow subsidiary systems over Scotland and the North Sea ; all moving southeastwards.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	64	47	58·0	49·0	53·2	+ 0·5	78	0	7	0·46	−0·03	*	*
	Stornoway	68	50	64·0	53·9	58·6	+ 4·7	116	0	5	0·38	−0·32	19	15
	Wick	77	48	69·0	52·3	60·1	+ 5·7	127	0	4	0·15	−0·30	*	*
	Lairg S	74	42	67·0	50·6	58·2	+ 4·3	113	0	0	—	−0·66	*	*
	Glencarron S	67	45	63·4	50·7	56·6	+ 2·8	102	0	5	0·65	?	? ‡	? ‡
	Fort Augustus S	75	46	71·3	49·7	59·8	+ 3·4	125	0	3	0·33	?	*	*
1. SCOTLAND, E.	Nairn	79	49	72·3	53·6	62·7	+ 6·0	145	0	1	0·42	−0·07	*	*
	Aberdeen	76	48	70·3	52·6	60·8	+ 4·1	132	0	1	0·14	−0·36	43	35
	Braemar S	76	40	72·3	49·2	60·0	+ 5·7	126	0	1	0·22	−0·39	53‡	43‡
	Ochtertyre S	82	47	78·0	51·0	63·6	+ 6·6	151	0	0	—	−0·72	*	*
	Leith	80	50	75·1	54·4	64·0	+ 6·0	154	0	2	0·36	−0·14	*	*
	Marchmont S	80	46	73·0	51·9	61·7	+ 5·8	138	0	2	0·60	−0·10	52	43
2. ENGLAND, N.E.	Alnwick Castle	75	49	69·6	54·4	61·5	+ 4·5	137	0	2	1·26	+0·76	*	*
	Durham	83	49	77·6	54·4	65·2	+ 7·0	162	0	2	0·09	−0·44	44	37
	Shields	79	50	71·6	55·6	62·9	+ 5·0	146	0	2	0·32	−0·16	*	*
	Scarborough fR	84	50	74·2	56·1	64·5	+ 5·9	158	0	1	0·06	−0·54	57‡	49‡
	York	85	47	78·1	52·9	64·6	+ 4·9	158	0	0	—	−0·58	49	42
	Spurn Head	74	54	68·6	57·0	62·4	+ 3·7	143	0	1	0·20	?	*	*
3. ENGLAND, E.	Hillington fR	87	45	80·0	52·1	65·1	+ 5·6	162	0	1	0·06	−0·52	75	65
	Yarmouth	73	52	68·3	55·1	61·2	+ 1·0	134	0	1	0·25	−0·37	*	*
	Geldeston	86	45	76·2	52·5	63·6	+ 3·8	151	0	1	0·26	−0·19	74	64
	Cambridge	89	46	81·4	52·7	66·1	+ 4·2	169	0	1	0·02	−0·53	71	62
	Rothamsted	86	45	77·4	51·7	63·7	+ 2·1	152	0	1	0·07	−0·48	*	*
	Ingatestone	86	46	75·6	52·1	63·0	+ 0·9	147	0	1	0·08	−0·46	70‡	61‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	89	47	80·1	51·9	65·0	+ 4·6	161	0	1	0·05	−0·56	65‡	56‡
	Loughborough	86	52	79·7	53·3	65·6	+ 4·2	165	0	1	0·21	−0·32	*	*
	Leicester	88	51	80·0	54·1	66·1	+ 4·5	169	0	1	0·25	−0·27	37	32
	Cheadle fR	81	49	75·7	54·1	64·2	+ 4·8	155	0	1	0·17	−0·55	*	*
	Churchstoke fR	83	45	77·4	47·8	61·6	+ 2·7	137	0	1	0·24	−0·31	82	71
	Hereford fR	88	49	80·6	51·8	65·2	+ 4·3	162	0	1	0·21	−0·31	*	*
	Cirencester	84	46	77·7	52·4	64·2	+ 4·3	155	0	1	0·18	−0·47	79	69
	Oxford	85	52	77·0	55·0	65·2	+ 4·6	162	0	1	0·13	−0·42	69	60
5. ENGLAND, S.	London	88	48	79·7	54·4	66·2	+ 3·6	169	0	1	0·05	−0·44	49‡	43‡
	Strathfield Turgiss fR	88	43	80·7	50·0	64·3	+ 4·1	156	0	1	0·04	−0·46	*	*
	Dungeness	79	59	70·0	53·9	61·4	+ 0·7	136	0	0	—	−0·40	*	*
	Hastings (St. Leonard's)	80	51	71·9	55·2	63·0	+ 2·9	147	0	1	0·02	−0·39	81	72
	Southampton	89	49	79·9	53·3	65·7	+ 5·1	166	0	1	0·01	−0·49	76	67
	Hurst Castle	76	50	72·0	53·0	61·8	+ 2·1	139	0	1	0·02	−0·46	*	*
	Stowell fR	81	47	76·1	51·7	63·1	+ 3·6	148	0	1	0·01	?	61	54
6. SCOTLAND, W.	Laudale (Loch Sunart)	69	48	64·0	50·8	56·9	+ 0·2	104	0	4	0·31	−0·99	*	*
	Glasgow	75	48	70·1	51·5	60·2	+ 3·1	127	0	3	0·28	−0·47	45	38
	Ardrossan	69	47	65·1	51·6	57·9	+ 0·7	111	0	3	0·35	−0·30	*	*
	Glenlee S	78	48	73·6	52·0	62·3	+ 5·9	142	0	2	0·43	?	*	*
	Douglas (Isle of Man)	75	50	71·1	52·7	61·3	+ 4·4	135	0	0	—	−0·59	75	64
7. ENGLAND, N.W.	Newton Reigny (Penrith)	77	46	73·2	51·2	61·4	+ 4·0	136	0	0	—	−0·58	63	53
	Barrow-in-Furness	71	54	67·7	56·9	61·9	+ 3·2	139	0	1	0·01	−0·64	*	*
	Stonyhurst	76	48	72·5	52·5	61·8	+ 3·9	139	0	1	0·15	−0·79	74	63
	Blackpool fR	73	47	69·1	51·7	59·8	+ 0·6	125	0	1	0·10	−0·53	69	59
	Manchester	82	48	75·0	52·9	63·2	+ 3·6	148	0	1	0·03	−0·82	*	*
	Liverpool Obsy (Bidston)	78	55	71·4	56·7	63·5	+ 3·7	151	0	1	0·02	−0·53	*	*
	Llandudno fR	76	51	69·8	54·8	61·8	+ 2·1	139	0	1	0·03	−0·51	66	57
	Holyhead	72	50	68·3	53·9	60·6	+ 2·2	130	0	0	—	−0·50	*	*
8. ENGLAND, S.W.	Llandovery	86	44	81·7	48·0	63·7	+ 3·8	152	0	1	0·12	−0·68	*	*
	Pembroke	69	54	66·0	54·3	59·7	+ 0·5	124	0	1	0·04	−0·46	79	69
	Arlington (N. Devon)	78	50	72·9	51·0	60·2	+ 0·1	127	0	0	—	−1·00	*	*
	Cullompton fR	84	45	79·0	49·6	63·3	+ 2·7	149	0	0	—	−0·61	84	74
	Falmouth	74	53	70·8	56·1	62·9	+ 3·2	146	0	0	—	−0·69	95	85
	Plymouth	81	55	76·1	57·7	66·3	+ 5·4	170	0	0	—	−0·62	89	79
	Prawle Point	82	51	71·6	54·4	62·4	+ 3·7	143	0	0	—	?	*	*
9. IRELAND, N.	Malin Head											?	*	*
	Londonderry	76	46	71·9	54·6	62·7	+ 5·2	145	0	3	0·39	−0·31	*	*
	Mullaghmore	72	50	66·9	56·9	61·6	+ 2·5	137	0	1	0·51	−0·30	*	*
	Belmullet	68	48	65·4	56·7	60·8	+ 3·7	132	0	1	0·56	?	*	*
	Markree Castle	75	46	69·0	52·7	60·6	+ 1·4	130	0	1	0·36	−0·38	24	21
	Brookeborough	78	47	71·1	52·3	61·1	+ 1·6	134	0	1	0·61	?	*	*
	Armagh	78	49	72·1	53·1	61·9	+ 2·7	139	0	2	0·25	−0·35	33	28
	Donaghadee	80	49	69·7	54·1	61·4	+ 3·8	136	0	3	0·25	−0·25	*	*
	Edgeworthstown	78	48	71·7	52·9	61·7	+ 2·7	138	0	1	0·12	−0·69	*	*
10. IRELAND, S.	Dublin	77	54	73·2	56·7	64·4	+ 5·2	157	0	1	0·01	−0·48	57	49
	Parsonstown	77	48	73·3	53·0	62·4	+ 3·8	143	0	1	0·25	−0·37	42	36
	Kilkenny	82	47	79·1	54·0	65·7	+ 6·5	166	0	1	0·10	−0·43	*	*
	Waterford	81	48	76·7	52·0	63·5	+ 3·4	151	0	1	0·49	−0·12	*	*
	Roche's Point	73	56	71·6	57·9	64·3	+ 4·2	156	0	2	0·06	−0·68	*	*
	Valencia	71	53	69·9	55·1	62·0	+ 3·8	140	0	2	0·07	−0·80	48	42
	Killarney	77	46	74·0	50·4	61·5	+ 2·4	137	0	2	0·04	?	*	*
	Foynes	77	54	72·1	56·5	63·8	+ 5·6	153	0	1	0·14	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	70	56	68·6	57·6	62·7	+ 3·0	145	0	2	0·08	−0·40	*	*
	Jersey (Noirmont)	81	52	72·3	55·7	63·4	+ 2·8	150	0	0	—	−0·48	78	70

Stations marked fR are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunnill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 27.] *Second Series.* WEEK ENDING MONDAY, 11TH JULY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1864-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 108.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	For the Week. Difference from Mean.	For the Week. Below 42°	For the Week. Difference from Mean.	From January 4, 1887. Above 42°.	From January 4, 1887. Difference from Mean.	From January 4, 1887. Below 42°.	From January 4, 1887. Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	78	33	61·6	47·1	53·9	1 below.	83	+ 5	0	0	902	+194	547	+ 37
	1. SCOTLAND, EAST	82	36	67·5	50·6	58·5	2 above.	116	+16	0	0	1181	+204	584	+ 41
	2. ENGLAND, N.E.	83	38	69·5	53·7	61·1	2 above.	134	+25	0	0	1101	+ 76	564	+ 82
	3. ENGLAND, EAST	87	39	75·5	55·0	64·5	3 above.	158	+38	0	0	1213	− 22	675	+168
	4. MIDLAND COUNTIES	86	39	74·4	54·4	63·7	3 above.	152	+33	0	0	1288	+ 29	670	+166
	5. ENGLAND, SOUTH	84	42	73·1	55·5	63·7	2 above.	152	+26	0	0	1314	− 29	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	80	34	67·2	52·2	59·2	2 above.	120	+18	0	0	1166	+121	445	+ 47
	7. ENGLAND, N.W.	84	35	69·3	54·3	61·3	2 above.	135	+26	0	0	1157	+ 54	501	+118
	8. ENGLAND, S.W.	81	39	69·9	56·0	62·5	2 above.	144	+28	0	0	1358	+ 59	405	+172
	9. IRELAND, NORTH	80	45	68·4*	53·7	60·5	4 above.	130	+28	0	0	1348 †	+222	373	+ 23
	10. IRELAND, SOUTH	84	46	71·2	55·5	62·8	3 above.	146	+36	0*	0	1521	+211	336	+ 97
	— CHANNEL ISLANDS	80	50	70·6	58·3	64·0	3 above.	154	+35	0	0	1372	− 22	170	+ 77

Rainfall.

	DISTRICTS. (See p. 108.)	For the Week. Number of Rainy Days.	For the Week. Total Fall.	For the Week. More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	From January 4, 1887. Difference from Mean.	From January 4, 1887. Total Fall.	From January 4, 1887. Difference from Mean.
			10ths of In.				Ins.	Ins.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	11	6 more.	110	− 6	19·4	+ 2·6
	1. SCOTLAND, EAST	6	7	1 more.	81	−15	9·9	− 4·9
	2. ENGLAND, N.E.	3	2	4 less.	74	−19	7·0	− 5·7
	3. ENGLAND, EAST	2	1	4 less.	70	−25	7·5	− 4·4
	4. MIDLAND COUNTIES	2	1	5 less.	68	−26	8·3	− 5·3
	5. ENGLAND, SOUTH	2	1	4 less.	67	−23	8·2	− 4·8
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	5	11	3 more.	86	−20	17·0	− 5·0
	7. ENGLAND, N.W.	4	5	2 less.	69	−28	10·4	− 5·2
	8. ENGLAND, S.W.	3	4	3 less.	70	−33	9·4	−10·7
	9. IRELAND, NORTH	5	8	1 more.	81	−36	12·6	− 4·2
	10. IRELAND, SOUTH	4	6	1 less.	70	−41	11·7	− 7·6
	— CHANNEL ISLANDS	3	2	3 less.	80	−31	8·5	− 6·8

Bright Sunshine.

	DISTRICTS. (See p. 108.)	For the Week. Hours recorded.	For the Week. Percentage of possible Duration.	From January 4, 1887. Hours recorded.	From January 4, 1887. Difference from Mean.	From January 4, 1887. Percentage of possible Duration.	From January 4, 1887. Difference from Mean.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	36	29	602	−126	24	− 6
	1. SCOTLAND, EAST	35	29	832	+ 23	34	+ 1
	2. ENGLAND, N.E.	45	39	803	+ 70	33	+ 3
	3. ENGLAND, EAST	58	51	979	+ 74	40	+ 2
	4. MIDLAND COUNTIES	50	44	874	+ 79	36	+ 3
	5. ENGLAND, SOUTH	58	52	946	+104	39	+ 4
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	44	38	891	+126	36	+ 4
	7. ENGLAND, N.W.	44	38	929	+154	38	+ 6
	8. ENGLAND, S.W.	48	42	1119	+214	46	+ 8
	9. IRELAND, NORTH	26	23	872	+131	36	+ 5
	10. IRELAND, SOUTH	32	28	1050	+216	43	+ 8
	— CHANNEL ISLANDS	58	52	1208	+141	50	+ 6

General Remarks.

Weather has been in a somewhat unsettled condition in Ireland and Scotland, with cloudy or overcast skies and some considerable falls of rain; over England, however, the weather has again been fair generally, the only rainfall experienced being some local showers. Thunder and lightning have occurred at times in different parts of the Kingdom.

Temperature has been slightly below the mean in "Scotland, N.", but in all other districts it has continued above, the excess varying between 2° and 4°. The highest of the maxima, which were recorded in most places on the 8th, ranged from 78° in "Scotland, N." to 86° in the "Midland Counties" and to 87° in "England, E." The lowest of the minima, which were generally registered either on the 5th or 6th, were decidedly low for the season over Great Britain, ranging from 33° to 36° in Scotland, and from 35° to 42° over England; in Ireland the lowest reading was 45° and in the "Channel Islands" 50°. During the latter part of the period the minima were high, the thermometer at many stations not falling below 58° and in some instances no lower than 62°.

Rainfall has been rather more than the mean in Scotland and about equal to it in Ireland, but over the greater part of England the fall has been very slight.

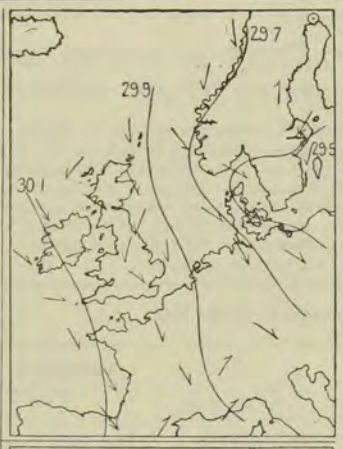
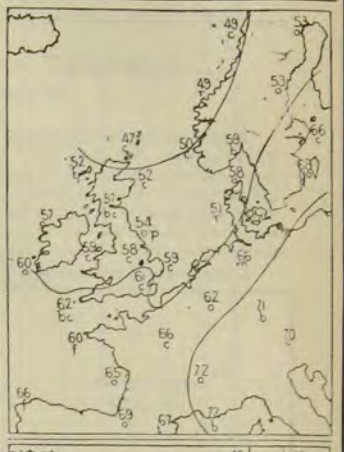
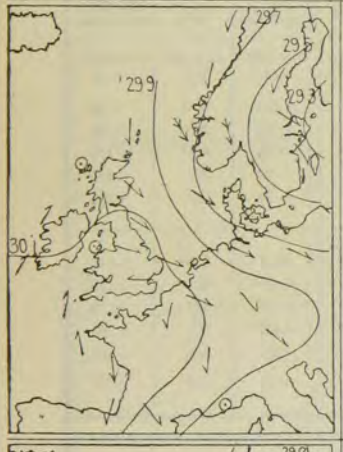
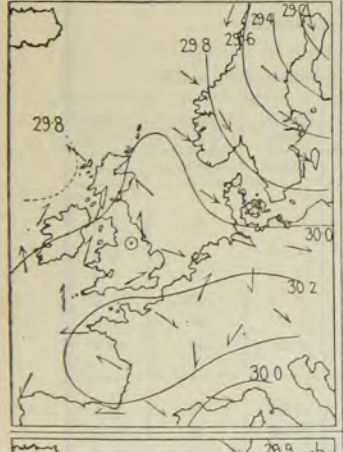
Bright sunshine shows a decrease in nearly all districts, but over England and the Channel a considerable amount has again been recorded. The percentage of the possible amount of duration ranged from 23 to 28 in Ireland, from 29 to 38 in Scotland, and from 38 to 52 in England and the "Channel Islands".

Depressions observed.—The distribution of pressure during this period has been more favourable for the presence of depressions in our neighbourhood than for a long time past, the barometer being highest over France and comparatively low to the north-westward and northward of our Islands and over Scandinavia. Several low pressure systems consequently skirted our western and northern coasts, while some small subsidiary disturbances passed more directly over our Islands. Light or moderate breezes from between South and West were most prevalent over the United Kingdom, but varied somewhat both in direction and force as the various depressions passed over; in the extreme west of Ireland a strong breeze or moderate gale was experienced on the 8th.

* The corresponding value in last week's Report should read "69·7."
† This value has been altered somewhat owing to the receipt of further information.

A 51734. 350.—7/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather during the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, July 5.** *Weather* cloudy in most places, with rain at Christiansund and Dungeness, and passing showers at Malin Head. Showers falling later at several of our more northern stations. *Temperature* fallen generally; readings over our Islands ranging at 8 a.m. from 62° at Scilly to 47° in the Shetlands. Maxima below 70° on all but our extreme southern coasts, and below 60° in the north. *Wind* light to fresh from North or North-West in most districts, but South-Westerly in Germany and the east of France. *Sea* smooth generally. *Barometer* rising a little in our Islands, but falling at most of the Continental stations. Anticyclone lying off the north-west of Spain, with a large depression over Sweden, and a small secondary disturbance over North Germany. Depressions subsequently moving south-eastwards, and barometer rising in Scandinavia.	
		**Wednesday, July 6.** *Weather* rainy over the Baltic, Denmark, and the north of Ireland, but fair or fine elsewhere. Unsettled weather extending to west of Scotland later. *Temperature* risen a little in the south-west of our Islands, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 68° at Scilly to 47° in the Shetlands. Maxima slightly above 70° over England and the south of Ireland. *Wind* light Southerly on our western coasts, and variable in the south, but North-Westerly or Northerly elsewhere. Subsequently shifting to South-West in the west, and to South-East in the east. *Sea* smooth generally. *Barometer* falling in Ireland and also in Sweden, but rising elsewhere. Anticyclone lying over England, the Bay of Biscay, and the west of France, with a well-marked depression over the Baltic. New disturbance appearing later off our extreme north-west coasts, and barometer falling in west and north generally.	
		**Thursday, July 7.** *Weather* fine in Spain, France, Germany, and the south-east of England, but cloudy elsewhere, with rain in Scotland. Improvement taking place in north later. *Temperature* risen generally; readings over our Islands ranging at 8 a.m. from 70° at Cambridge to 50° in the Shetlands. Subsequently rising to 81° at Loughborough and in London, and to 82° at Cambridge. *Wind* South-Westerly or Southerly in our Islands, but North-Westerly in Scandinavia and Germany, and North-Easterly or Easterly in France; light or moderate in force generally. *Sea* rather rough at Valencia, but moderate to smooth elsewhere. *Barometer* falling in our Islands, but rising at most of the Continental stations. Anticyclonic band lying over France and Germany, with a rather deep depression over Finland, and a shallower disturbance off the west of Scotland. Latter system subsequently disappearing, but barometer continuing to fall in west.	
		Friday, July 8. *Weather* dull in the west of our Islands, but fair or fine in most other localities. Rain falling later at many of our western and northern stations, with thunderstorms in the north of Scotland and south of Ireland. *Temperature* rising at all but the Irish stations; readings over our Islands ranging at 8 a.m. from 71° in London and at Cambridge to 51° in the Shetlands. Subsequently rising to 82° at Leith, 83° at York and Liverpool, 84° in London, and 85° at Loughborough and Cambridge. *Wind* Northerly in Sweden, but South-Easterly or Southerly in our Islands and France; strong in force in the south of Ireland. *Sea* rough on our extreme south-west coasts. *Barometer* falling in our Islands and the west of France, but falling elsewhere. Anticyclone lying over Germany, and large but not deep depression off the west of Ireland. Depression subsequently moving northwards.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

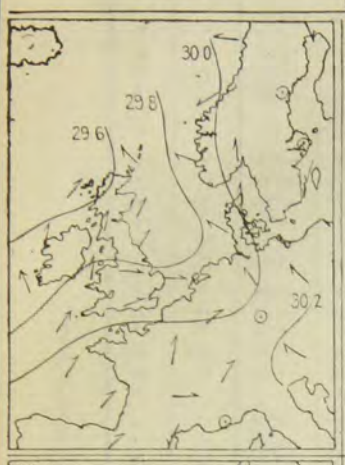
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Saturday, July 9.

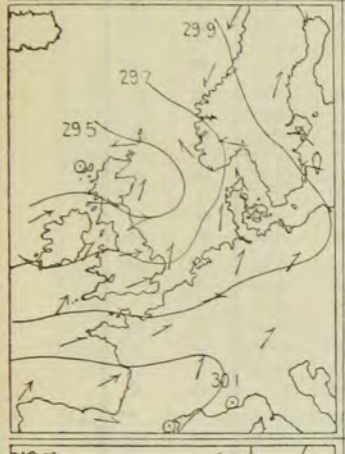
Weather fine over the greater part of western Europe, but rainy in the north of Scotland. Rain falling later at all our western stations and slight showers in the east.

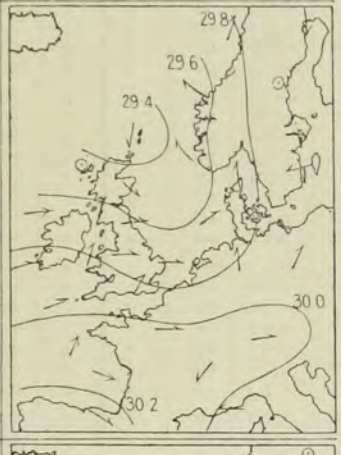
Temperature fallen in our Islands and the north of France; readings over the United Kingdom ranging at 8 a.m. from 69° at Scilly and 68° at Yarmouth to 52° in the Shetlands. Highest maxima 80° at Cambridge and 78° at York and in London.

Wind moderate South-Easterly in the west of Ireland and also on the eastern shores of the North Sea, but South-Westerly elsewhere. Subsequently veering to South-West in Ireland.

Sea rough on our extreme south-west coasts.

Barometer falling at all but the Swedish stations. Areas of high pressure lying over Spain and South Germany, with a large but shallow depression off the north-west of Scotland. New disturbances appearing in west later.





Sunday, July 10.

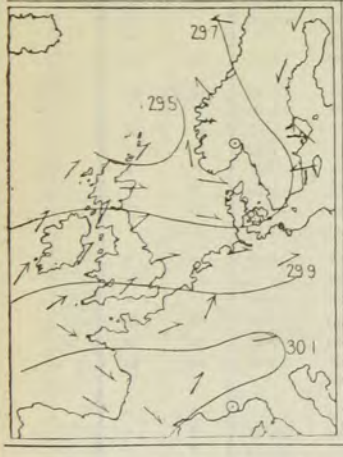
Weather fine in the north and east of England and also in the north of Scandinavia, but cloudy elsewhere, with showers in Scotland and the north of Ireland. Showers falling later in most places and thunderstorm occurring at Aberdeen.

Temperature fallen generally; readings over our Islands ranging at 8 a.m. from 67° at Cambridge to 53° in the Shetlands. Subsequently rising to 79° in London and to 80° at Cambridge.

Wind fresh or strong from South-West or West over England, Ireland, and France, but moderate South-Easterly in Scandinavia and Denmark.

Sea rough on exposed parts of our south and south-west coasts.

Barometer falling generally. Anticyclone lying over Spain, with depression over Scotland, and subsidiary disturbances over Ireland and England. Low pressure systems moving eastwards later, and barometer rising in our Islands and France.



Monday, July 11.

Weather fair at our eastern stations, but dull and unsettled in the west, and foggy in the Channel. Showers falling later in many parts of the Kingdom.

Temperature changed little and irregularly; readings over our Islands ranging at 8 a.m. from 68° in London and at Cambridge to 53° in the Shetlands. Subsequently rising to 79° in London, and to 80° at Cambridge.

Wind moderate South-Westerly or Westerly generally, but chiefly Easterly in Sweden.

Sea still rather rough on our extreme south-west coasts.

Barometer rising at all but the Scandinavian and Danish stations. Anticyclone lying over the southern part of the Bay of Biscay, and shallow depression off the north of Scotland. Rise continuing all day, but tendency to fall shown in the south of Ireland in evening.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; ⟹ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	56	39	53·0	44·0	48·2	− 5·0	43	0	4	0·36	−0·12	*	*
	Stornoway	70	39	62·3	47·1	54·2	0·0	85	0	3	0·68	−0·02	36	29
	Wick	65	38	60·1	45·6	52·4	− 2·5	73	0	5	1·64	+1·16	*	*
	Lairg ℛ	77	33	63·5	46·1	54·2	− 0·1	85	0	4	0·93	+0·23	*	*
	Glencarron ℛ	76	39	64·3	49·0	56·1	+ 1·8	99	0	6	1·88	?	? ‡	? ‡
	Fort Augustus ℛ	78	43	66·6	50·7	58·1	+ 1·4	113	0	7	1·32	?	*	*
1. SCOTLAND, E.	Nairn	75	40	65·4	50·0	57·2	− 0·1	106	0	6	0·92	+0·41	*	*
	Aberdeen	71	39	64·4	49·6	56·5	− 0·7	102	0	6	0·84	+0·29	38	31
	Braemar ℛ ℛ	73	36	64·5	49·2	56·6	+ 1·9	102	0	6	0·57	−0·07	26‡	21‡
	Ochtertyre ℛ	81	39	72·8	51·1	61·2	+ 3·7	134	0	4	0·41	−0·33	*	*
	Leith	82	41	69·7	52·6	60·6	+ 2·1	130	0	6	0·63	+0·03	*	*
	Marchmont ℛ	79	38	68·4	51·0	59·1	+ 2·7	120	0	5	0·72	−0·04	41	34
2. ENGLAND, N.E.	Alnwick Castle	71	43	65·4	54·4	59·5	+ 1·9	123	0	3	0·51	−0·05	*	*
	Durham	82	38	72·6	52·4	61·8	+ 3·3	139	0	2	0·30	−0·29	43	36
	Shields	73	42	66·9	52·7	59·3	+ 0·9	121	0	2	0·07	−0·55	*	*
	Scarborough ℛ	77	45	70·1	54·2	61·6	+ 2·4	137	0	4	0·14	−0·47	47‡	41‡
	York	83	40	73·7	52·7	62·5	+ 2·0	144	0	4	0·14	−0·44	45	39
	Spurn Head	72	50	68·0	56·0	61·6	+ 0·9	137	0	1	0·01	?	*	*
3. ENGLAND, E.	Hillington ℛ	87	39	76·9	53·9	64·6	+ 4·2	158	0	3	0·09	−0·52	56	49
	Yarmouth	77	46	71·1	56·3	63·2	+ 2·2	148	0	3	0·16	−0·42	*	*
	Geldeston	82	43	74·5	54·9	64·0	+ 3·3	154	0	3	0·13	−0·37	56	49
	Cambridge	85	44	78·3	55·1	65·9	+ 3·5	167	0	1	0·03	−0·49	59	52
	Rothamsted	82	46	76·5	54·8	64·9	+ 2·7	160	0	2	0·08	−0·50	*	*
	Ingatestone	81	46	75·5	54·8	64·4	+ 1·8	157	0	2	0·21	−0·34	62‡	54‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	84	39	76·6	55·3	65·2	+ 3·8	152	0	2	0·34	−0·28	45‡	39‡
	Loughborough	85	42	75·4	55·3	64·7	+ 2·7	159	0	2	0·05	−0·47	*	*
	Leicester	86	44	75·7	55·6	65·0	+ 3·0	161	0	3	0·16	−0·46	47	41
	Cheadle ℛ	81	44	70·9	53·1	61·4	+ 1·2	136	0	3	0·09	−0·61	*	*
	Churchstoke ℛ	82	41	71·3	52·9	61·5	+ 1·9	137	0	3	0·04	−0·52	43	37
	Hereford ℛ	84	44	76·8	54·2	64·7	+ 3·3	159	0	1	0·01	−0·51	*	*
	Cirencester	83	43	73·7	53·1	62·7	+ 2·1	145	0	2	0·11	−0·56	55	48
	Oxford	81	49	74·4	55·3	64·2	+ 3·1	155	0	1	0·05	−0·52	61	54
5. ENGLAND, S.	London	84	53	77·4	57·1	66·5	+ 3·4	172	0	1	0·02	−0·46	57‡	50‡
	Strathfield Turgiss ℛ	84	42	78·9	53·6	65·4	+ 4·5	164	0	2	0·02	−0·49	*	*
	Dungeness	76	47	67·0	55·9	61·1	− 0·5	134	0	2	0·03	−0·37	*	*
	Hastings (St. Leonard's)	77	52	69·4	56·0	62·2	+ 0·5	141	0	3	0·11	−0·31	61	54
	Southampton	81	48	76·3	56·6	65·8	+ 4·5	167	0	2	0·09	−0·43	64	57
	Hurst Castle	76	48	70·4	55·3	62·3	+ 1·6	142	0	1	0·02	−0·46	*	*
	Stowell ℛ	80	45	72·2	53·8	62·4	+ 2·1	143	0	3	0·19	?	51	45
6. SCOTLAND, W.	Laudale (Loch Sunart)	74	43	66·1	52·7	58·9	+ 1·0	118	0	5	1·31†	−0·03	*	*
	Glasgow	78	40	68·0	51·2	59·0	+ 1·5	119	0	6	0·98	+0·19	35	29
	Ardrossan	73	48	66·0	53·4	59·3	+ 1·6	121	0	5	0·97	+0·32	*	*
	Glenlee S	80	34	69·7	51·6	60·0	+ 3·0	126	0	5	1·28	?	*	*
	Douglas (Isle of Man)	73	43	66·3	51·9	58·6	+ 1·4	116	0	4	1·06	+0·45	53	46
7. ENGLAND, N.W.	Newton Reigny (Penrith)	81	35	69·4	50·5	59·3	+ 1·3	121	0	3	0·75	+0·10	46	39
	Barrow-in-Furness	79	48	66·3	55·0	60·3	+ 1·3	128	0	2	0·49	−0·19	*	*
	Stonyhurst	80	41	69·7	53·9	61·3	+ 2·4	135	0	4	0·56	−0·42	47	41
	Blackpool ℛ	83	49	69·7	54·6	61·6	+ 1·9	137	0	5	0·51	−0·18	45	39
	Manchester	82	44	71·4	54·6	62·4	+ 2·4	143	0	3	0·40	−0·47	*	*
	Liverpool Obsy (Bidston)	83	49	70·7	56·0	62·8	+ 2·4	146	0	3	0·14	−0·50	*	*
	Llandudno ℛ	84	46	70·2	55·3	62·2	+ 1·8	141	0	3	0·29	−0·31	39	34
	Holyhead	79	52	67·1	54·6	60·4	+ 1·7	129	0	5	0·60	+0·10	*	*
8. ENGLAND, S.W.	Llandovery	81	39	72·6	55·6	63·5	+ 3·2	151	0	4	0·51	−0·32	*	*
	Pembroke	68	53	63·6	56·1	59·7	0·0	124	0	2	0·47	−0·04	38	33
	Arlington (N. Devon)	79	44	70·7	54·3	61·9	+ 1·3	139	0	5	0·68	−0·36	*	*
	Cullompton ℛ	77	45	73·7	54·2	63·3	+ 1·9	149	0	3	0·40	−0·22	48	42
	Falmouth	76	55	70 2	58·2	63·8	+ 3·1	153	0	4	0·42	−0·27	56	50
	Plymouth	75	55	71·7	59·0	64·9	+ 3·3	160	0	3	0·31	−0·24	48	43
	Prawle Point	75	50	67·1	54·6	60·4	+ 1·0	129	0	3	0·29	?	*	*
9. IRELAND, N.	Malin Head	75	47	65·9	54·1	59·6	+ 3·0	123	0	5	0·91	?	*	*
	Londonderry	80	46	71·1	53·7	61·8	+ 5·6	139	0	5	0·53	−0·21	*	*
	Mullaghmore	72	53	67·4	55 3	60·9	+ 3·6	132	0	6	0·75	−0·10	*	*
	Belmullet	71	53	65·6	57·0	61·0	+ 3·6	133	0	6	0·60	?	*	*
	Markree Castle	74	48	68·1	52·9	60·0	+ 2·5	126	0	6	0·50	−0·24	23	20
	Brookeborough	76	47	69·0	52·7	60·3	+ 2·7	128	0	5	1·07	?	*	*
	Armagh	76	45	69·7	53·2	60·9	+ 3·4	132	0	5	0·64	−0·03	29	25
	Donaghadee	75	49	68·4	52·7	60·0	+ 3·6	126	0	5	0 76	+0·21	*	*
	Edgeworthstown	75	47	70·6	51·3	60 3	+ 3·4	128	0	5	1·29	+0·47	*	*
10. IRELAND, S.	Dublin	77	51	71·8	56·5	63·6	+ 3·9	151	0	4	0·32	−0·18	38	33
	Parsonstown	75	46	71·0	53·1	61·4	+ 2·3	136	0	4	0·90	+0·24	30	26
	Kilkenny	84	46	76·0	53·0	63·7	+ 4·0	152	0	4	0·45	−0·09	*	*
	Waterford	75	49	72·9	54·3	63·1	+ 2·6	148	0	3	0 34	−0·28	*	*
	Roche's Point	71	53	68·4	57·6	62·6	+ 1·9	144	0	2	0·28	−0·44	*	*
	Valencia	76	51	69·0	56·6	62·4	+ 3·7	143	0	5	0·96	+0·08	27	24
	Killarney	75	51	70·2	56·1	62·7	+ 3·2	145	0	5	0·72	?	*	*
	Foynes	77	51	70 6	56·6	63·1	+ 4·1	148	0	4	0 74	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	72	58	69·9	58·9	64·0	+ 3·7	154	0	3	0·24	−0·26	*	*
	Jersey (Noirmont)	80	50	71·3	57·6	64·0	+ 2·8	154	0	3	0 10	−0 39	58	52

Stations marked ℛ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 28.] *Second Series.* WEEK ENDING MONDAY, 18TH JULY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

DISTRICTS. (See p. 112.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	72	36	61·9	48·1	54·5	1 below.	88	+ 4	0	0	990	+195	547	+ 37
1. SCOTLAND, EAST	74	38	67·6	50·5	58·4	1 above.	115	+10	0	0	1296	+211	584	+ 41
2. ENGLAND, N.E.	80	40	68·9	53·9	60·9	2 above.	132	+17	0	0	1233	+ 88	564	+ 82
3. ENGLAND, EAST	86	42	73·4	53·6	62·8	1 above.	146	+20	0	0	1359	− 5	675	+168
4. MIDLAND COUNTIES	82	40	72·1	51·7	61·2	0 (average).	134	+11	0	0	1422	+ 42	670	+166
5. ENGLAND, SOUTH	82	40	71·1	54·3	62·1	1 above.	141	+10	0	0	1455	− 19	524	+151
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	70	42	65·5	52·0	58·2	1 above.	113	+ 7	0	0	1279	+127	445	+ 47
7. ENGLAND, N.W.	75	36	66·3	54·5	60·0	0 (average).	126	+13	0	0	1283	+ 68	501	+118
8. ENGLAND, S.W.	77	38	68·2	54·0	60·6	0 (average).	130	+10	0	0	1488	+ 74	405	+172
9. IRELAND, NORTH	73	39	66·0	52·9	59·0	0 (average).	119	+ 4	0	0	1467	+238	373	+ 23
10. IRELAND, SOUTH	79	42	69·0	53·7	60·8	1 above.	132	+18	0	0	1653	+233	336	+ 97
— CHANNEL ISLANDS	73	55	68·9	57·9	63·0	2 above.	147	+22	0	0	1519	+ 3	170	+ 77

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 112.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	4	8	1 more.	114	− 6	20·1	+ 2·7	38	32	640	−119	25	− 5
1. SCOTLAND, EAST	4	3	4 less.	85	−15	10·9	− 5·4	44	37	876	+ 23	34	0
2. ENGLAND, N.E.	3	1	5 less.	77	−20	7·1	− 6·2	47	41	850	+ 68	33	+ 2
3. ENGLAND, EAST	3	6	0 (average).	73	−26	8·1	− 4·4	59	53	1038	+ 82	41	+ 3
4. MIDLAND COUNTIES	3	3	3 less.	71	−27	8·6	− 5·6	52	46	926	+ 87	36	+ 3
5. ENGLAND, SOUTH	2	4	1 less.	69	−25	8·6	− 4·8	50	45	996	+104	39	+ 3
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	3	6	3 less.	89	−22	17·6	+ 3·5	55	48	946	+141	37	+ 5
7. ENGLAND, N.W.	3	4	4 less.	72	−29	10·8	− 5·5	58	51	987	+168	39	+ 7
8. ENGLAND, S.W.	3	5	2 less.	73	−34	9·9	−10·8	52	47	1171	+216	46	+ 8
9. IRELAND, NORTH	5	7	1 more.	86	−36	13·3	− 4·2	43	37	915	+139	36	+ 6
10. IRELAND, SOUTH	3	5	1 less.	73	−43	12·2	− 7·8	49	44	1099	+226	43	+ 9
— CHANNEL ISLANDS	2	2	3 less.	82	−33	8·7	− 7·1	54	40	1262	+137	50	+ 5

General Remarks.

Weather has been in an unsettled and showery condition generally, with thunderstorms in many parts of England. In the extreme south the showers were slight, but over our western districts a good deal of rain fell on the 12th, while in the south-east of England the thunderstorms of the 15th and 16th were accompanied by local rains of an exceptionally heavy nature.

Temperature has been about equal to the average in "England, N.W.", "England, S.W.", and "Ireland, N.", but from 1° to 2° above the normal elsewhere. The highest readings were recorded either on the 12th or 13th, when the thermometer rose to between 70° and 77° in the western and northern parts of the Kingdom, to 82° in the "Midland Counties" and "England, S.", and to 86° in "England, E." The lowest readings were observed on the 17th or 18th, when the thermometer fell to between 36° and 40° in all districts excepting "England, E.", "Scotland, W.", and "Ireland, S."

Rainfall has been a little more than the mean in "Scotland, N." and "Ireland, N", and about equal to it in "England, E.", but less than the normal elsewhere.

Bright sunshine has been more prevalent than it was last week, the percentages of the possible amount of duration varying from 32 in "Scotland, N." and 37 in "Scotland, E." and "Ireland, N." to 51 in "England, N.W." and 52 in "England, E."

Depressions observed.—During the early part of the week the highest pressures were observed over France and Germany, and on the 13th and 14th some large depressions moved north-eastwards along our western and northern coasts. South-Westerly winds therefore prevailed generally, and blew strongly in the west of Ireland. On the 15th, some shallow subsidiary depressions passed eastwards across the Kingdom, and in their rear an anticyclone was formed over our western coasts. During the remainder of the week the prevailing winds were therefore Northerly, and on the morning of the 18th, when a well marked depression advanced from the south of Sweden to the neighbourhood of Skudesnaes, they blew strongly at some of the Scotch stations.

A 51799. 350.—7/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

Weather

During the 24 hours succeeding

8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.

Tuesday, July 12.

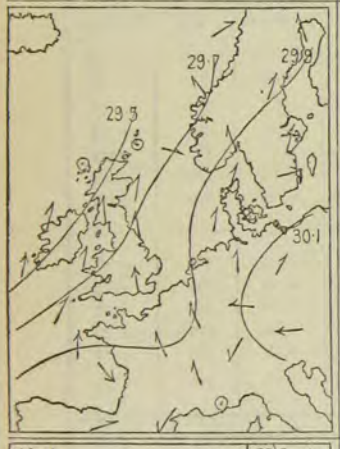
Weather dull in the west and north of our Islands, with rain in Scotland and the north of Ireland, and fog at many of the Channel stations, but fair or fine elsewhere. Heavy rain falling in west and north later.

Temperature risen a little in our Islands and Scandinavia, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 70° at Cambridge and Yarmouth to 51° in the Shetlands. Subsequently rising to 80° at Spurn Head, York, and Loughborough, and 84° at Cambridge.

Wind variable in Scandinavia and the south of France, and strong Southerly in the west of Ireland, but moderate from South-West or West elsewhere.

Sea rough on our extreme west and south-west coasts.

Barometer rising at all but our western and the Swedish stations. Readings highest over France and South Germany, with a large depression off the west of our Islands. Fall extending later to all parts of our Islands and France.



Wednesday, July 13.

Weather cloudy and showery in the west and north of our Islands as well as in Norway, but fine in most other localities. Showers extending to several of our eastern stations later, with local thunderstorms.

Temperature fallen a little in Ireland and the west and north of England, but risen elsewhere; reading over our Islands ranging at 8 a.m. from 76° in London to 54° in the Shetlands. Subsequently rising to 82° in London and 85° at Cambridge, but brisk fall taking place during latter part of day.

Wind Southerly or South-Westerly excepting in the south of France, where variable. Subsequently veering to West on our extreme western coasts.

Sea rough in the south-west, but moderate to smooth elsewhere.

Barometer falling in our Islands and the north of France, but rising elsewhere. Areas of high pressure lying over Germany and Spain, with a large depression to the westward of Scotland. Rise taking place in west and south later.

Thursday, July 14.

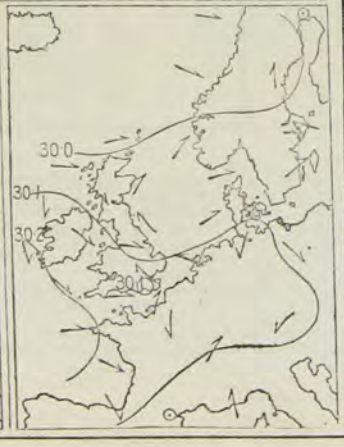
Weather fair generally, but dull at our south-western, southern, and the western French stations. Showers falling later in many parts of our Islands, with thunder in the east of England.

Temperature changed irregularly in our Islands, but risen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 66° in the east of England to 55° in the Shetlands. Subsequently rising to 75° in London and 76° at Cambridge and Yarmouth.

Wind Southerly in Scandinavia and variable in the south of France, but South-Westerly or Westerly elsewhere; moderate to fresh in force generally.

Sea rather rough at the mouth of the Channel.

Barometer rising at all but the Norwegian and Danish stations. Anticyclonic band extending from the north of Spain to South Germany, with a large depression off the north of Scotland. Rise extending later to eastern shores of the North Sea.



Friday, July 15.

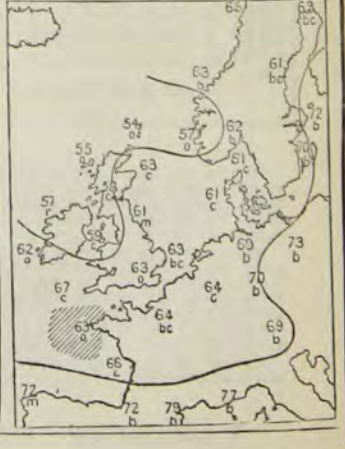
Weather fair generally, but showery in the north of Ireland and the north-west of England. Local showers experienced later over the United Kingdom, with thunderstorms and very heavy rain at some of the south-eastern stations.

Temperature risen a little on our south-west coasts, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 67° at Scilly to 54° in the Shetlands. Subsequently rising to 75° at Oxford, 76° at Loughborough, and 77° at Cambridge.

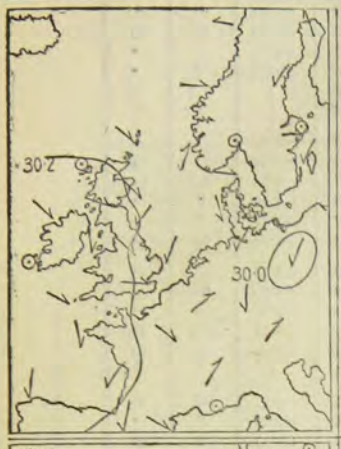
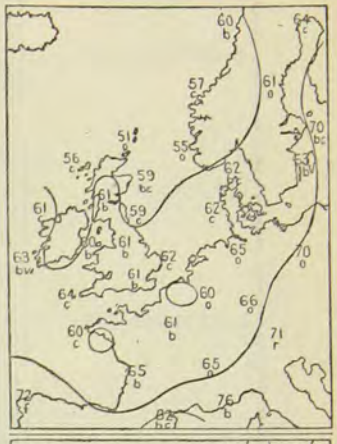
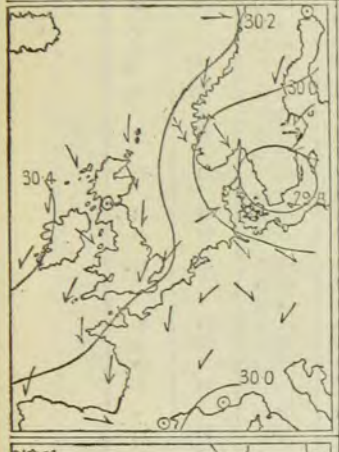
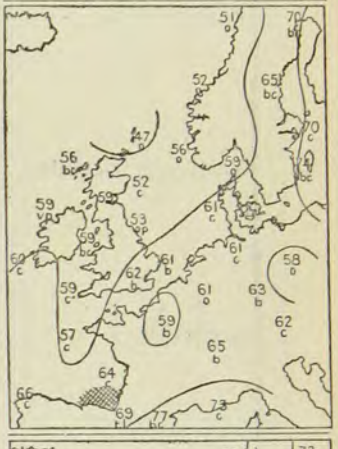
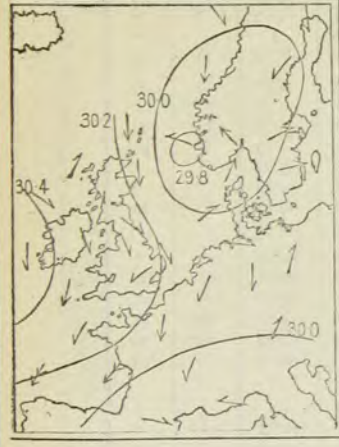
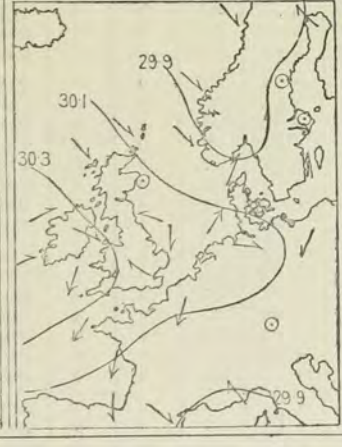
Wind light from West or South-West in our Islands, but Southerly in the south of Norway, and variable in France. Subsequently veering to North-West on our western coast.

Sea moderate at Scilly but smooth elsewhere.

Barometer rising generally. Pressure still highest in France, and lowest on our extreme northern coasts, with shallow local depressions over various parts of Ireland and England. Depression subsequently moving eastwards.



SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, July 16.** *Weather* fine generally, but dull over Germany and the Netherlands, with rain at Munich. Showers falling later at all but our western stations, with severe thunderstorms in the south-east of England; rain exceedingly heavy at Ingatestone. *Temperature* fallen a little at our northern and eastern stations, but changed irregularly elsewhere; readings over our Islands ranging at 8 a.m. from 69° at Prawle Point to 51° in the Shetlands. *Wind* light from North-West or North over the United Kingdom and the north of France, but North-Easterly over the Bay of Biscay and variable in Scandinavia. *Sea* smooth generally. *Barometer* rising at all but the German stations. Pressure highest in an anticyclone lying over Ireland and the northern parts of the Bay of Biscay, and lowest in a shallow depression lying over Germany. Small local disturbance subsequently appearing over the south-east of England.	
		**Sunday, July 17.** *Weather* fair generally, but dull in Norway and showery at one or two of our northern and eastern stations. Showers falling later in south-east, and thunderstorms occurring at Hurst Castle. *Temperature* fallen generally; readings over our Islands ranging at 8 a.m. from 63° at Jersey to 47° at Sumburgh Head. *Wind* moderate Northerly in our Islands, but strong from North-West on the eastern shores of the North Sea, and moderate from North-East in France. *Sea* moderate to smooth generally. *Barometer* falling a little in Scandinavia, Denmark, and the south of France, but rising elsewhere. Anticyclone lying to the westward of our Islands, with a well-marked depression over the south of Sweden. Depression subsequently moving slowly north-westwards, and barometer falling in our Islands.	
		**Monday, July 18.** *Weather* fair generally, but dull in Scandinavia, Germany, and France. Subsequently becoming overcast on our extreme north-west coasts, with slight drizzling rain in places. *Temperature* risen Norway and East Scotland, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 63° at Valencia and Prawle Point to 50° in the Shetlands. *Wind* North-Westerly or Northerly in our Islands, but North-Easterly in France and South-Westerly in Denmark; moderate or fresh in force generally. Subsequently backing to South-West on our extreme north-west coasts. *Sea* rather rough at Cape Grisnez, but moderate to smooth elsewhere. *Barometer* falling in Norway and the north of our Islands, but rising elsewhere. Anticyclone lying over the west of Ireland, with a small but well-marked depression over the south of Norway. Depression subsequently dispersing, but barometer falling slightly in many parts of our Islands.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 109 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head ℳ	63	43	57·1	48·1	52·3	− 2·4	72	0	6	0·38	−0·10	*	*
	Stornoway ℳ	64	39	60·9	47·7	53·8	− 0·8	83	0	3	0·73	+0·03	38	32
	Wick ℳ	72	43	63·0	49·1	55·6	+ 0·4	95	0	3	0·62	+0·12	*	*
	Lairg 𝔖	71	37	63·6	48·0	55·3	+ 0·7	93	0	3	0·13	−0·58	*	*
	Glencarron 𝔖	67	39	62·1	49·3	55·3	+ 0·7	93	0	6	1·59	?	? ‡	? ‡
	Fort Augustus 𝔖	69	36	64·4	46·1	54·6	− 2·9	88	0	4	0·85	?	*	*
1. SCOTLAND, E.	Nairn ℳ	73	40	66·9	50·9	58·3	+ 0·6	114	0	5	0·25	−0·33	*	*
	Aberdeen ℳ	74	43	66·3	50·3	57·7	+ 0·4	110	0	2	0·21	−0·39	52	44
	Braemar 𝔖	68	40	64·3	49·0	56·1	+ 1·3	99	0	4	0·37	−0·28	38‡	32‡
	Ochtertyre 𝔖	72	40	69·4	50·3	59·2	+ 1·2	120	0	5	0·70	−0·05	*	*
	Leith ℳ	74	43	71·7	52·7	61·5	+ 3·0	137	0	4	0·17	−0·47	*	*
	Marchmont 𝔖	70	38	66·9	49·9	57·8	+ 1·3	111	0	3	0·15	−0·64	42	36
2. ENGLAND, N.E.	Alnwick Castle ℳ	70	45	64·6	53·1	58·5	+ 0·9	116	0	3	0·09	−0·55	*	*
	Durham ℳ	76	40	70·6	51·5	60·4	+ 1·7	129	0	3	0·09	−0·54	49	42
	Shields ℳ	75	44	66·7	54·1	60·0	+ 1·6	126	0	3	0·24	−0·35	*	*
	Scarborough ℳ	80	47	70·0	54·3	61·6	+ 2·0	137	0	4	0·14	−0·47	50‡	44‡
	York ℳ	80	50	72·6	53·9	62·6	+ 1·1	144	0	2	0·12	−0·46	41	36
	Spurn Head ℳ	80	50	69·1	56·4	62·3	+ 2·5	142	0	2	0·11	?	*	*
3. ENGLAND, E.	Hillington ℳ	86	42	74·5	52·5	**62·7**	+ 2·0	145	0	5	0·31	−0·31	55	49
	Yarmouth ℳ	76	50	69·7	56·3	62·5	+ 1·1	144	0	1	0·01	−0·60	*	*
	Geldeston ℳ	86	47	72·5	53·8	62·5	+ 1·1	144	0	3	1·06	+0·50	52	46
	Cambridge ℳ	85	43	76·4	52·7	63·7	+ 1·1	152	0	3	0·37	−0·14	60	54
	Rothamsted ℳ	81	43	74·0	53·0	62·8	+ 0·4	146	0	3	0·06	−0·54	*	*
	Ingatestone ℳ	84	46	73·4	53·3	62·6	− 0·3	144	0	3	1·88	+1·33	69‡	62‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	80	40	73·0	49·9	60·7	− 0·7	131	0	2	1·16	+0·54	49‡	43‡
	Loughborough ℳ	80	42	73·6	52·7	62·4	+ 0·1	143	0	2	0·04	−0·49	*	*
	Leicester ℳ	82	43	73·9	53·2	62·8	+ 0·6	146	0	1	0·05	−0·47	37	33
	Cheadle ℳ	75	43	69·0	51·8	59·8	− 0·6	125	0	5	0·37	−0·33	*	*
	Churchstoke ℳ	73	41	69·4	49·2	58·6	− 1·5	114	0	3	0·39	−0·18	60	53
	Hereford ℳ	77	41	73·6	51·5	61·8	+ 0·2	139	0	4	0·19	−0·33	*	*
	Cirencester ℳ	75	42	71·0	52·0	60·8	− 0·2	132	0	3	0·20	−0·48	58	52
	Oxford ℳ	77	44	72·9	53·6	62·6	+ 1·2	144	0	2	0·07	−0·50	54	48
5. ENGLAND, S.	London ℳ	82	48	74·7	55·7	64·5	+ 1·2	158	0	4	0·51	+0·02	55‡	50‡
	Strathfield Turgiss ℳ	79	40	75·9	51·5	62·9	+ 1·5	146	0	2	0·13	−0·39	*	*
	Dungeness ℳ	71	49	66·6	54·9	60·3	− 1·4	128	0	1	0·83	+0·41	*	*
	Hastings (St. Leonard's) ℳ	72	49	68·1	55·0	61·1	+ 0·3	134	0	1	0·12	−0·32	54	49
	Southampton ℳ	77	47	73·3	55·3	63·7	+ 2·1	152	0	1	0·06	−0·51	53	48
	Hurst Castle ℳ	76	46	70·0	54·6	61·8	+ 0·6	139	0	2	0·64	+0·16	*	*
	Stowell ℳ	72	43	68·9	53·3	60·6	+ 0·1	130	0	3	0·37	?	38	34
6. SCOTLAND, W.	Laudale (Loch Sunart) †	69	42	64·7	51·5	57·6	+ 0·7	109	0	5	0·83	−0·52	*	*
	Glasgow ℳ	70	43	66·8	50·2	57·9	+ 0·2	111	0	4	0·40	−0·41	40	34
	Ardrossan ℳ	67	49	64·7	53·3	58·6	+ 0·9	116	0	2	0·28	−0·37	*	*
	Glenlee 𝔖	68	44	66·4	51·3	58·3	+ 0·8	114	0	4	0·94	?	*	*
	Douglas (Isle of Man)	68	48	64·9	53·5	58·8	+ 1·3	118	0	1	0·48	−0·17	70	61
7. ENGLAND, N.W.	Newton Reigny (Penrith)	69	36	66·0	49·8	57·3	− 1·1	107	0	4	0·42	−0·26	58	50
	Barrow-in-Furness ℳ	66	54	65·0	56·7	60·6	+ 1·4	130	0	3	0·13	−0·55	*	*
	Stonyhurst ℳ	71	42	67·2	51·5	58·8	− 0·3	118	0	3	0·82	−0·20	60	53
	Blackpool ℳ	69	46	65·5	56·3	60·6	+ 0·7	130	0	3	0·20	−0·50	57	50
	Manchester ℳ	75	43	68·7	51·8	59·7	− 0·7	124	0	3	0·14	−0·74	*	*
	Liverpool Obsy (Bidston) ℳ	74	52	68·0	57·1	62·2	+ 1·5	141	0	5	0·39	−0·29	*	*
	Llandudno ℳ	71	54	66·2	57·1	61·3	+ 0·6	135	0	3	0·39	−0·23	55	49
	Holyhead ℳ	67	52	63·7	55·3	59·2	0·0	120	0	3	0·48	−0·04	*	*
8. ENGLAND, S.W.	Llandovery ℳ	74	38	70·6	47·6	54·6	− 5·9	88	0	4	0·95	+0·09	*	*
	Pembroke ℳ	67	53	63·9	56·1	59·7	− 0·2	124	0	2	0·60	+0·11	67	60
	Arlington (N. Devon) ℳ	70	47	67·0	52·7	59·4	− 1·7	122	0	4	0·31	−0·62	*	*
	Cullompton ℳ	74	47	70·7	52·6	61·0	− 0·5	133	0	3	0·49	−0·11	42	38
	Falmouth ℳ	71	53	68·4	56·5	62·0	+ 0·8	140	0	3	0·40	−0·28	54	49
	Plymouth ℳ	77	54	70·4	57·7	63·6	+ 1·9	151	0	3	0·35	−0·13	44	40
	Prawle Point ℳ	70	49	66·7	54·6	60·2	+ 0·3	127	0	3	0·07	?	*	*
9. IRELAND, N.	Malin Head ℳ	68	54	63·4	55·6	59·2	+ 2·5	120	0	6	0·72	?	*	*
	Londonderry ℳ	73	50	67·7	52·7	59·7	+ 1·2	124	0	6	1·05	+0·45	*	*
	Mullaghmore ℳ	68	51	65·0	54·9	59·6	− 0·1	123	0	3	0·79	+0·04	*	*
	Belmullet ℳ	64	49	63·0	54·7	58·6	+ 0·9	116	0	6	1·02	?	*	*
	Markree Castle ℳ	67	39	65·7	49·2	56·9	− 2·9	104	0	5	0·42	−0·29	39	34
	Brookeborough ℳ	69	43	67·2	50·9	58·5	− 1·7	116	0	3	0·47	?	*	*
	Armagh ℳ	71	48	67·7	52·1	59·4	− 0·7	122	0	4	0·84	+0·34	46	40
	Donaghadee ℳ	72	51	66·3	55·1	60·3	+ 2·0	128	0	5	0·60	+0·12	*	*
	Edgeworthstown ℳ	69	45	67·9	50·7	58·7	− 1·1	116	0	3	0·34	−0·44	*	*
10. IRELAND, S.	Dublin ℳ	73	50	69·8	55·8	62·3	+ 2·5	142	0	3	0·16	−0·30	50	44
	Parsonstown ℳ	70	45	68·4	51·6	59·4	+ 0·1	122	0	2	0·22	−0·36	44	39
	Kilkenny ℳ	79	46	72·7	53·1	62·2	+ 2·2	141	0	3	0·85	+0·33	*	*
	Waterford ℳ	74	42	70·9	52·1	60·9	+ 0·1	132	0	1	0·82	+0·20	*	*
	Roche's Point ℳ	70	50	66·3	54·3	59·9	− 0·9	125	0	2	0·70	+0·02	*	*
	Valencia ℳ	69	49	66·9	55·0	60·5	+ 1·7	130	0	4	0·50	−0·38	54	48
	Killarney ℳ	?	?	?	?	?	?	?	?	5	0·51	?	*	*
	Foynes ℳ	70	50	67·7	53·8	60·3	+ 0·9	128	0	5	0·27	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's) ℳ	71	57	67·9	58·6	62·9	+ 2·2	146	0	2	0·36	−0·15	*	*
	Jersey (Noirmont) ℳ	73	55	69·9	57·1	63·1	+ 1·4	148	0	1	0·06	−0·44	54	50

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked 𝔖 with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 29.] *Second Series.* WEEK ENDING MONDAY, 25TH JULY, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 116.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	70	41	61·7	49·0	54·9	0 (average).	90	+ 8	0	0	1080	+205	547	+ 37
	1. SCOTLAND, EAST	79	44	69·2	51·6	59·8	3 above.	125	+23	0	0	1421	+233	534	+ 41
	2. ENGLAND, N.E.	84	47	70·5	52·9	61·4	2 above.	136	+20	0	0	1369	+111	564	+ 82
	3. ENGLAND, EAST	84	37	74·9	50·9	62·0	0 (average).	140	+12	0	0	1499	+ 7	675	+168
	4. MIDLAND COUNTIES	83	42	75·7	52·4	63·2	2 above.	148	+24	0	0	1570	+ 64	670	+166
	5. ENGLAND, SOUTH	83	42	74·3	53·4	63·2	2 above.	148	+14	0	0	1603	− 6	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	73	44	65·6	52·4	58·5	1 above.	116	− 1	0	0	1395	+140	445	+ 47
	7. ENGLAND, N.W.	75	46	67·7	54·9	60·8	1 above.	132	+17	0	0	1415	+ 87	501	+118
	8. ENGLAND, S.W.	83	44	72·8	54·3	62·9	2 above.	146	+23	0	0	1634	+ 96	405	+172
	9. IRELAND, NORTH	78	45	65·7	54·8	59·9	1 above.	125	+ 8	0	0	1592	+261	373	+ 23
	10. IRELAND, SOUTH	84	45	70·4	55·9	62·6	3 above.	144	+27	0	0	1797	+262	336	+ 97
	— CHANNEL ISLANDS	74	48	70·0	57·1	63·1	2 above.	148	+18	0	0	1667	+ 23	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 116.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	10	4 more.	119	− 6	21·1	+ 3·1	30	25	670	−119	25	− 4
	1. SCOTLAND, EAST	3	3	4 less.	88	−16	10·5*	− 5·8	49	43	925	+ 37	34	+ 1
	2. ENGLAND, N.E.	2	1	5 less.	79	−22	7·2	− 6·8	56	49	906	+ 89	34	+ 3
	3. ENGLAND, EAST	1	2	4 less.	74	−29	8·3	− 4·7	78	71	1116	+120	42	+ 4
	4. MIDLAND COUNTIES	1	2	4 less.	72	−30	8·8	− 6·0	54	49	980	+107	37	+ 4
	5. ENGLAND, SOUTH	1	1	4 less.	70	−27	8·7	− 5·3	65	60	1061	+133	40	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	5	7	3 less.	94	−21	18·3	− 5·4†	44	39	990	+143	37	+ 5
	7. ENGLAND, N.W.	2	2	5 less.	74	−31	11·0	− 6·0	55	49	1042	+188	39	+ 7
	8. ENGLAND, S.W.	2	3	4 less.	75	−36	10·2	−11·3	69	64	1240	+252	47	+ 9
	9. IRELAND, NORTH	4	5	2 less.	90	−37	13·8	− 4·4	27	24	942	+134	35	+ 4
	10. IRELAND, SOUTH	3	3	4 less.	76	−44	12·5	− 8·1	39	36	1138	+233	43	+ 9
	— CHANNEL ISLANDS	2	1	4 less.	84	−35	8·8	− 7·5	74	69	1336	+172	51	+ 6

General Remarks.

Weather has undergone a gradual change, and become generally unsettled. At the commencement of the week it was fine in all districts, but on the 21st rain set in over Ireland and Scotland, and by the close of the period unsettled weather had extended to all parts of the Kingdom.

Temperature has been about equal to the average in "Scotland, N." and "England, E.", but a little above it elsewhere, the excess being greatest (3°) in "Scotland, E." and "Ireland, S." The highest readings were recorded as a rule on the 19th or 20th, but in some parts of England on the 22nd, the thermometer rising to 83° or 84° in nearly all the English districts as well as in "Ireland, S.", and to between 70° and 79° in Scotland and the north of Ireland. The lowest readings, varying from 37° in "England, E." (at Hillington), to 46° in "England, N.W.", 47° in "England, N.E.", and 48° in the "Channel Islands" were observed on various dates.

Rainfall has been considerably less than the mean in all districts excepting "Scotland, N.", where a decided excess is shown.

Bright sunshine has been less prevalent than it was last week over Ireland and the greater part of Scotland, but somewhat more prevalent elsewhere. The percentages of the possible amount of duration ranged from 24 in "Ireland, N." and 25 in "Scotland, N." to 69 in the "Channel Islands" and 71 in "England, E."

Depressions observed.—At the commencement of the week an anticyclone lay over our western coasts, while some depression systems passed across Scandinavia, and moderate breezes from the north-westward were therefore reported over our Islands. On the 21st, however, the anticyclonic system broke up, and during the remainder of the week high pressure systems of irregular form were found over Germany, France, and Spain, while large depressions skirted our extreme north-western and northern coasts. The wind therefore backed to the South-Westward, and on the west coasts of Ireland and Scotland it occasionally increased to a strong breeze. In other parts of the Kingdom, however, it remained light or moderate in force.

* The corresponding value in last week's Report should read "10·2."
† The corresponding value in last week's Report should read "− 5·1."

A 51846. 350.—7/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

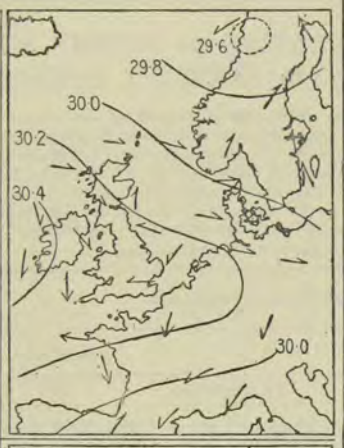
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, July 19.

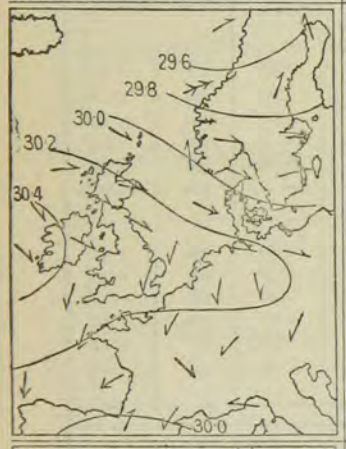
Weather fair generally, but rainy in Norway and dull in the extreme west and north of our Islands, as well as in the south of France, with a thunderstorm at Biarritz.

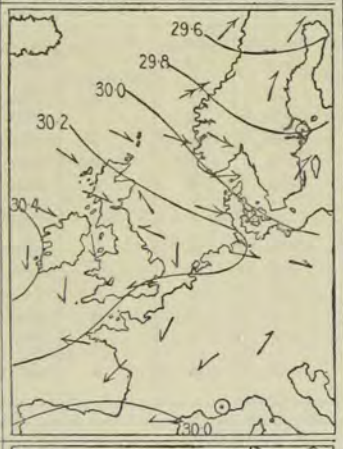
Temperature risen several degrees in our Islands, but fallen at most of the Continental stations; readings over the United Kingdom ranging at 8 a.m. from 68° at Leith to 56° at Dungeness and 50° in the Shetlands. Subsequently rising to 77° in London and at Cambridge, and to 78° at Leigh and Loughborough.

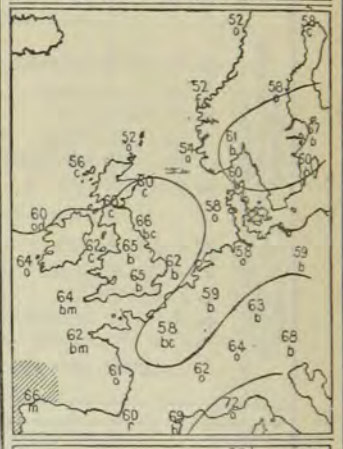
Wind moderate from North-West or North over the greater part of our Islands, but strong to a gale from North-East over the Bay of Biscay, and strong from West on the eastern shores of the North Sea.

Sea slight or smooth generally.

Barometer rising at all but the Swedish and southern French stations. Anticyclone lying over the west of Ireland, with large depression systems over the north of Norway and south of France, and a well-defined subsidiary disturbance near the Sound. Depressions in two last-mentioned regions disappearing later.







Wednesday, July 20.

Weather fair generally, but dull in the extreme west and north of our Islands, as well as in the south of France, with rain at Biarritz.

Temperature risen slightly at all but the Swedish stations; readings over our Islands ranging at 8 a.m. from 71° at Prawle Point to 52° in the Shetlands. Subsequently rising to 80° in London, to 82° at Cambridge, and to 83° at York and Loughborough.

Wind moderate from North-West over the northern parts of the United Kingdom, and strong from West on the eastern shores of the North Sea, but North-Easterly at our southern and the French stations.

Sea moderate to smooth.

Barometer rising at all but the Scandinavian stations. Anticyclone still lying over Ireland, with a large depression over the north of Norway, and relatively low pressures over Spain. Slight fall taking place in our Islands later.

Thursday, July 21.

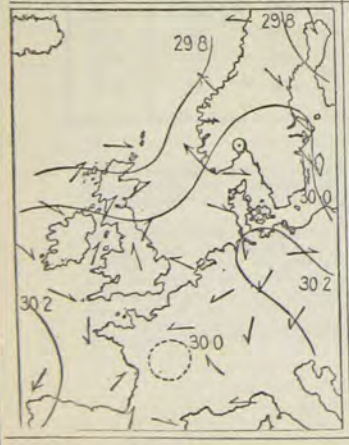
Weather fine and bright generally, but rainy in Norway, and dull on our extreme north and north west coasts. Rain falling in north-west later.

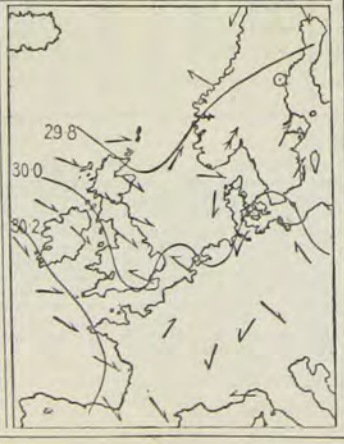
Temperature risen a little in France, but changed irregularly elsewhere; readings over our Islands ranging at 8 a.m. from 67° at Prawle Point to 52° in the Shetlands. Subsequently rising to 77° at York, Oxford, and Cambridge, and to 81° at Loughborough.

Wind light from South-West in the north of our Islands, but moderate to strong from West or North-West on the eastern shores of the North Sea, and North-Easterly at our southern and the French stations.

Sea rather rough at Christiansund, but slight or smooth elsewhere.

Barometer falling at all but the Scandinavian stations. Anticyclone still lying over Ireland, but large depression over Scandinavia moving away to the northward. New disturbances subsequently approaching the north of Scotland from the westward.





Friday, July 22.

Weather fine over the greater part of England, France, and Germany, but cloudy elsewhere, with rain at several of our northern stations.

Temperature changed little and irregularly in our Islands, but risen at many of the Continental stations; readings over the United Kingdom ranging at 8 a.m. from 69° at Prawle Point to 55° in the Shetlands and Hebrides. Subsequently rising to 80° at Oxford, 81° at Loughborough, and 84° at Cambridge.

Wind moderate Westerly or South-Westerly in the north of our Islands, but South-Easterly in Norway and North-Westerly in Sweden. Very variable over England and France. North-Westerly breezes setting in later on our western and southern coasts.

Sea moderate to smooth.

Barometer falling at all but the Swedish stations. Anticyclonic areas lying respectively over Germany and the Bay of Biscay, with a large depression to the northward of our Islands, and small shallow depression over France and the north of England. Rise taking place in west later.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

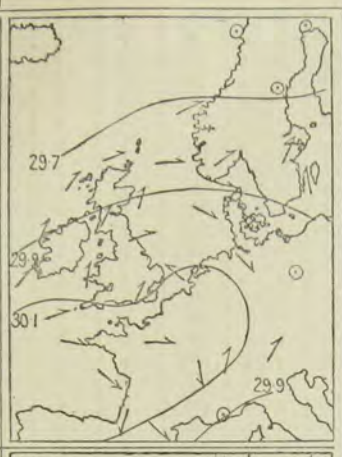
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Saturday, July 23.

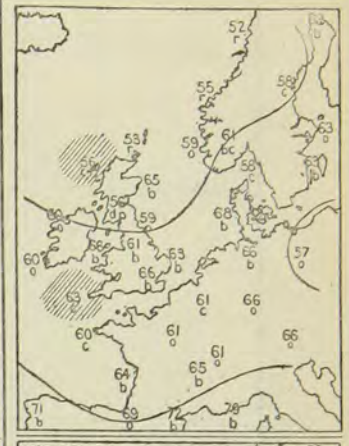
Weather fine over Great Britain, the North Sea, and the east of Ireland, but cloudy elsewhere, with showers on our extreme north-west coasts. Rain falling later at all our more western and northern stations.

Temperature risen in Scandinavia, Denmark, and the south-east of England, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 67° at Prawle Point to 53° in the Shetlands. Subsequently rising to 76° at Oxford, 77° at Loughborough, and 79° in London and at Cambridge.

Wind light or moderate from the Westward over the greater part of our Islands and the North Sea, but variable in France. Subsequently backing to South-West on our western and northern coasts.

Sea rather rough at Stornoway and Scilly, but moderate to smooth elsewhere.

Barometer falling in Scandinavia and Denmark, and also in the extreme west of our Islands, but rising elsewhere. Anticyclone lying over France, the Bay of Biscay, and our south-west coasts, with a large depression off the west of Norway. Brisk fall taking place in west later.



Sunday, July 24.

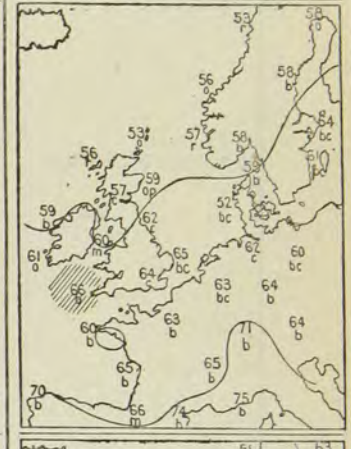
Weather fine at our eastern, southern, and the Continental stations, but dull in the west and north of our Islands, with rain in many places. Unsettled weather subsequently extending eastwards.

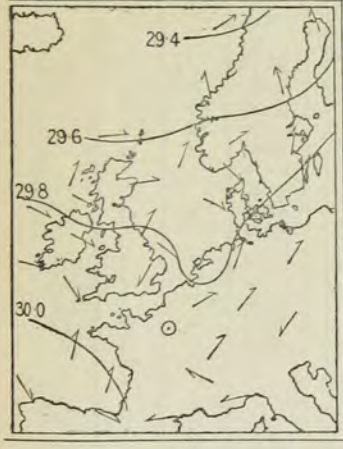
Temperature changed irregularly; readings over our Islands ranging from 69° at Cambridge to 53° at Sumburgh Head and Nairn. Subsequently rising to 78° in London, 79° at Yarmouth, and 80° at Cambridge.

Wind Westerly in Ireland, but South-Westerly over Great Britain and the North Sea, and variable or Easterly in France; moderate to fresh in force generally.

Sea rather rough at Scilly, but moderate to smooth elsewhere.

Barometer falling at all but the Swedish stations. Areas of high pressure (30·1 ins. and upwards) lying over Germany, France, and Spain, with a large depression off the north of Scotland. Depression subsequently moving away north-eastwards and barometer rising again in west.





Monday, July 25.

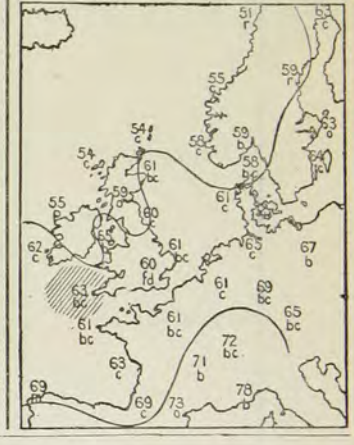
Weather fair generally, but rainy at some of the Scandinavian stations, and misty over the eastern part of the Channel. Rain falling later at our extreme western stations.

Temperature fallen a little at all but the German and eastern French stations; readings over our Islands ranging at 8 a.m. from 64° at Loughborough and Hurst Castle to 52° in the Shetlands.

Wind light North-Westerly over the greater part of England, and Easterly in the south of France, but Westerly or South-Westerly elsewhere. Subsequently backing to South in Ireland and increasing in force.

Sea rather rough at Scilly, but moderate to smooth elsewhere.

Barometer rising in the western and northern parts of our Islands, but falling elsewhere. Pressure highest 30·1 in. and upwards over Portugal, with a large depression off the north of Norway, and subsidiary disturbances over the North Sea and the south-east of England. Brisk fall taking place in west later.



Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⟹ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 113 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	59	47	57·6	48·3	52·6	− 1·1	74	0	5	1·13	+0·65	*	*
	Stornoway	69	48	61·0	51·0	55·7	+ 1·1	96	0	4	1·34	+0·66	30	25
	Wick	70	41	64·3	49·4	56·3	+ 1·0	100	0	4	0·42	−0·10	*	*
	Lairg ℌ	67	47	63·7	45·0	53·7	− 1·2	82	0	4	0·58	−0·12	*	*
	Glencarron ℌ	62	48	60·1	49·8	54·6	− 0·3	88	0	6	1·91	?	? ‡	? ‡
	Fort Augustus ℌ	69	47	63·5	50·6	56·6	− 1·1	102	0	4	0·84	?	*	*
1. SCOTLAND, E.	Nairn	71	47	67·3	52·7	59·5	+ 1·8	123	0	4	0·37	−0·23	*	*
	Aberdeen	74	45	69·1	51·6	59·7	+ 2·4	124	0	4	0·41	−0·24	50	43
	Braemar ℌ	75	45	66·7	50·1	57·8	+ 3·0	111	0	4	0·10	−0·60	49‡	42‡
	Ochtertyre ℌ	79	44	71·6	50·3	60·2	+ 2·2	127	0	2	0·20	−0·56	49	43
	Leith	78	50	71·3	54·4	62·3	+ 3·8	142	0	2	0·25	−0·38	*	*
	Marchmont ℌ	75	45	69·4	50·4	59·2	+ 2·6	120	0	2	0·40	−0·39		
2. ENGLAND, N.E.	Alnwick Castle	72	48	67·0	52·1	60·9	+ 3·3	132	0	2	0·31	−0·36	*	*
	Durham	84	47	74·6	51·3	62·1	+ 3·5	141	0	1	0·02	−0·61	58	51
	Shields	73	50	67·9	52·1	59·5	+ 1·0	124	0	1	0·05	−0·55	*	*
	Scarborough ℌ	79	49	70·6	52·8	61·1	+ 1·5	134	0	3	0·08	−0·54	*‡	*‡
	York	83	49	75·1	52·9	63·2	+ 1·7	148	0	1	0·06	−0·52	53	47
	Spurn Head	74	52	67·7	56·1	61·5	+ 1·7	137	0	1	0·17	?	*	*
3. ENGLAND, E.	Hillington ℌ	84	37	78·3	49·1	62·7	+ 2·0	145	0	1	0·04	−0·58	79	71
	Yarmouth	79	46	68·4	55·0	61·2	− 0·3	134	0	1	0·24	−0·37	*	*
	Geldeston	79	41	72·3	50·0	60·4	− 1·0	129	0	1	0·15	−0·40	85	77
	Cambridge	84	41	79·7	52·0	64·9	+ 2·2	160	0	1	0·15	−0·37	74	67
	Rothamsted	81	41	76·3	49·0	61·7	− 0·7	138	0	1	0·19	−0·41	*	*
	Ingatestone	78	43	74·1	50·0	61·2	− 1·8	134	0	1	0·27	−0·27	74‡	67‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	80	49	74·9	53·4	63·4	+ 2·0	150	0	1	0·05	−0·57	53‡	48‡
	Loughborough	83	42	78·6	52·0	64·4	+ 2·3	157	0	1	0·26	−0·26	*	*
	Leicester	83	44	78·2	54·3	65·4	+ 3·2	164	0	2	0·17	−0·45	44	40
	Cheadle ℌ	77	51	72·0	52·7	61·7	+ 1·4	138	0	1	0·33	−0·37	*	*
	Churchstoke ℌ	77	46	73·1	49·4	60·4	+ 0·1	129	0	1	0·34	−0·24	55	50
	Hereford ℌ	82	43	77·6	51·6	63·7	+ 2·1	152	0	1	0·10	−0·42	*	*
	Cirencester	78	48	75·0	52·4	62·9	+ 1·7	146	0	1	0·19	−0·51	57	52
	Oxford	80	47	75·9	53·1	63·7	+ 2·1	152	0	1	0·26	−0·32	61	55
5. ENGLAND, S.	London	80	46	77·1	53·9	64·7	+ 1·4	159	0	1	0·32	−0·28	58‡	53‡
	Strathfield Turgiss ℌ	83	42	80·6	49·5	64·0	+ 2·6	154	0	1	0·22	−0·30	*	*
	Dungeness	71	44	66·9	55·7	60·9	− 0·8	132	0	0	—	−0·42	*	*
	Hastings (St. Leonard's)	74	49	69·5	55·0	61·8	+ 0·7	139	0	2	0·04	−0·41	73	67
	Southampton	83	47	78·9	53·8	65·5	+ 3·9	165	0	2	0·06	−0·52	71	65
	Hurst Castle	75	46	73·0	53·6	62·6	+ 1·3	144	0	1	0·04	−0·44	*	*
	Stowell ℌ	77	46	74·4	52·6	62·7	+ 2·1	145	0	1	0·07	?	58	53
6. SCOTLAND, W.	Laudale (Loch Sunart)	70	50	63·1	54·3	58·4	+ 1·5	115	0	6	1·62	+0·30	*	*
	Glasgow	70	47	65·6	51·0	57·8	+ 0·1	111	0	4	0·64	−0·18	38	33
	Ardrossan	68	49	65·0	52·1	58·1	+ 0·4	113	0	5	0·51	−0·15	*	*
	Glenlee	73	44	67·4	52·6	59·5	+ 1·8	123	0	4	0·54	?	*	*
	Douglas (Isle of Man)	71	47	66·9	51·9	58·9	+ 1·2	118	0	4	0·20	−0·48	50	45
7. ENGLAND, N.W.	Newton Reigny (Penrith)	74	46	68·9	51·3	59·5	+ 1·1	123	0	2	0·33	−0·36	51	45
	Barrow-in-Furness	68	54	64·9	56·0	60·1	+ 0·5	127	0	2	0·17	−0·52	*	*
	Stonyhurst	73	49	68·9	52·7	60·2	+ 1·0	127	0	1	0·11	−0·91	62	55
	Blackpool ℌ	68	54	66·1	57·1	61·3	+ 1·1	135	0	3	0·14	−0·56	54	48
	Manchester	75	49	72·0	52·8	61·7	+ 1·3	138	0	1	0·13	−0·75	*	*
	Liverpool Obsy (Bidston)	71	55	68·3	57·0	62·3	+ 1·6	142	0	2	0·23	−0·45	*	*
	Llandudno ℌ	70	54	67·0	56·4	61·3	+ 0·6	135	0	2	0·30	−0·31	51	46
	Holyhead	67	53	65·4	55·6	60·2	+ 0·7	127	0	3	0·16	−0·36	*	*
8. ENGLAND, S.W.	Llandovery	83	44	76·7	48·3	61·5	+ 1·6	137	0	2	0·29	−0·59	*	*
	Pembroke	72	54	66·3	56·3	61·0	+ 1·1	133	0	2	0·09	−0·43	68	62
	Arlington (N. Devon)	77	47	71·3	51·7	60·8	− 0·3	132	0	2	0·75	−0·39	*	*
	Cullompton ℌ	79	44	76·1	52·6	63·5	+ 1·9	151	0	1	0·03	−0·59	65	60
	Falmouth	75	51	71·0	56·4	63·2	+ 2·0	148	0	2	0·27	−0·45	73	68
	Plymouth	80	53	75·2	58·8	66·4	+ 4·7	171	0	1	0·19	−0·42	70	65
	Prawle Point	77	50	72·9	55·7	63·7	+ 3·8	152	0	2	0·59	?	*	*
9. IRELAND, N.	Malin Head	67	52	62·9	55·4	58·9	+ 2·1	118	0	6	0·58	?	*	*
	Londonderry	72	50	67·7	54·4	60·6	+ 2·1	130	0	6	0·41	−0·37	*	*
	Mullaghmore	67	53	64·3	56·4	60·1	+ 0·4	127	0	6	0·69	−0·19	*	*
	Belmullet	67	52	63·9	56·3	59·8	+ 2·1	125	0	6	0·58	?	*	*
	Markree Castle	69	50	65·0	53·9	59·1	− 0·7	120	0	5	0·69	−0·06	26	23
	Brookeborough	68	51	65·0	54·5	59·4	− 0·7	122	0	1	0·49	?	*	*
	Armagh	74	50	67·4	54·4	60·5	+ 0·6	130	0	3	0·48	−0·23	28	25
	Donaghadee	69	53	66·7	55·3	60·6	+ 2·3	130	0	3	0·31	−0·29	*	*
	Edgeworthstown	78	45	68·7	52·7	60·1	+ 0·3	127	0	3	0·44	−0·37	*	*
10. IRELAND, S.	Dublin	74	52	70·2	56·8	63·0	+ 3·1	147	0	3	0·12	−0·44	34	31
	Parsonstown	75	48	70·1	55·0	62·0	+ 2·7	140	0	2	0·41	−0·28	35	32
	Kilkenny	84	45	77·4	53·4	64·6	+ 4·5	158	0	1	0·13	−0·42	*	*
	Waterford												*	*
	Roche's Point	76	52	70·1	56·9	63·0	+ 2·3	147	0	3	0·13	−0·59	*	*
	Valencia	70	50	66·9	55·9	61·0	+ 1·9	133	0	3	0·52	−0·38	48	44
	Killarney	73	45	68·7	56·2	62·0	+ 2·4	140	0	3	0·26	?	*	*
	Foynes	73	52	69·2	57·2	62·8	+ 3·3	146	0	4	0·22	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	72	56	68·7	59·1	63·6	+ 2·9	151	0	2	0·12	−0·40	*	*
	Jersey (Noirmont)	74	48	71·3	55·1	62·6	+ 0·8	144	0	1	0·02	−0·48	74	69

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 30.] *Second Series.* WEEK ENDING MONDAY, 1ST AUGUST, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 120.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	69	40	63·1	48·7	55·4	0 (average).	94	+ 6	0	0	1174	+217	547	+ 37
	1. SCOTLAND, EAST	72	36	66·5	50·1	57·7	1 above.	110	+ 2	0	0	1531	+242	584	+ 41
	2. ENGLAND, N.E.	75	43	69·6	52·7	60·6	1 above.	130	+14	0	0	1499	+133	564	+ 82
	3. ENGLAND, EAST	79	43	73·5	53·8	63·0	1 above.	147	+19	0	0	1646	+ 33	675	+168
	4. MIDLAND COUNTIES	79	40	72·4	51·7	61·3	0 (average).	135	+11	0	0	1705	+ 78	670	+166
	5. ENGLAND, SOUTH	78	44	71·4	54·6	62·4	1 above.	143	+ 7	0	0	1746	+ 6	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	67	40	63·9	50·9	57·0	1 below.	105	− 4	0	0	1500	+137	445	+ 47
	7. ENGLAND, N.W.	74	43	67·0	53·6	59·8	0 (average).	125	+ 8	0	0	1540	+ 98	501	+118
	8. ENGLAND, S.W.	78	39	68·5	52·7	60·0	1 below.	126	+ 1	0	0	1760	+ 98	405	+172
	9. IRELAND, NORTH	69	40	64·5	51·6	57·6	1 below.	109	− 1	0	0	1701	+265	373	+ 23
	10. IRELAND, SOUTH	77	42	67·0	53·2	59·6	1 below.	123	+ 4	0	0	1918 *	+265	336	+ 97
	— CHANNEL ISLANDS	72	53	69·0	57·7	62·9	2 above.	146	+14	0	0	1813	+ 40	170	+ 77

Rainfall.

Bright Sunshine.

	DISTRICTS. (See p. 120.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	10	4 more.	125	− 3	22·1	+ 3·5	31	27	701	−122	25	− 4
	1. SCOTLAND, EAST	5	7	0 (average).	93	−14	11·2	− 5·8	37	33	932	+ 35	34	+ 1
	2. ENGLAND, N.E.	4	4	2 less.	83	−22	7·6	− 7·0	43	39	949	+ 97	34	+ 3
	3. ENGLAND, EAST	3	4	1 less.	77	−30	8·7	− 4·9	56	51	1172	+132	42	+ 4
	4. MIDLAND COUNTIES	2	4	2 less.	74	−32	9·2	− 6·2	52	48	1032	+123	37	+ 4
	5. ENGLAND, SOUTH	2	3	2 less.	72	−28	9·0	− 5·5	59	55	1120	+148	41	+ 6
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	5	9	2 less.	99	−19	19·2	− 5·2	39	35	1029	+144	37	+ 5
	7. ENGLAND, N.W.	3	6	2 less.	77	−32	11·6	− 6·2	38	34	1080	+189	39	+ 7
	8. ENGLAND, S.W.	3	7	1 less.	78	−37	10·9	−11·4	53	50	1293	+254	47	+ 9
	9. IRELAND, NORTH	5	10	2 more.	95	−36	14·8	− 4·2	44	40	986	+147	35	+ 5
	10. IRELAND, SOUTH	5	8	1 more.	81	−42	13·3	− 8·0	47	43	1185	+242	43	+ 8
	— CHANNEL ISLANDS	2	4	1 less.	86	−37	9·2	− 7·6	65	62	1401	+178	51	+ 6

General Remarks.

Weather continued in an unsettled condition over Scotland and Ireland during the greater part of the period, with rather frequent falls of rain; over England, however, it was generally fair or fine and the rainfall slight. Thunder and lightning were experienced in many parts of the Kingdom on the 31st, more especially over central and eastern England.

Temperature has been equal to or about one degree above the mean value in most districts, but over Ireland and in "Scotland, W." and "England, S.W." a slight deficit is shown. The highest of the maxima, which were recorded on irregular dates, varied from 67° in "Scotland, W." and 69° in "Scotland, N." and "Ireland, N." to 78° or 79° over the greater part of England. The lowest of the minima were registered on the last day of the period, when the thermometer fell to between 36° and 40° in Scotland, and to between 40° and 44° in England and Ireland; in the "Channel Islands" the lowest reading was 53°.

Rainfall has been more than the mean over Ireland and in "Scotland, N." and about equal to it in "Scotland, E.", but less in all other parts of the Kingdom.

Bright sunshine shows a decrease over England and the greater part of Scotland, but an increase in Ireland and the extreme north of Scotland. The percentage of the possible amount of duration ranged from 62 in the "Channel Islands" and to between 40 and 55 in most parts of England and Ireland to 27 in "Scotland, N."

Depressions observed.—During nearly the whole of this period, depressions travelled in a northerly or north-north-easterly direction outside our extreme western and northern coasts, while a few shallow subsidiary disturbances advanced more directly over us. Towards the end of the period, however, the area of highest pressure, which had existed over France, extended to our south-west and western coasts, and depressions were shown in the eastern part of our area. Fresh to strong southerly and South-Westerly winds prevailed during the earlier part of the period, but subsequently light and somewhat variable airs from the North-Westward became general.

* This value has been altered slightly owing to the receipt of some arrears of observations.

A 51896. 350.—8/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

Weather

During the 24 hours succeeding

8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.

Tuesday, July 26.

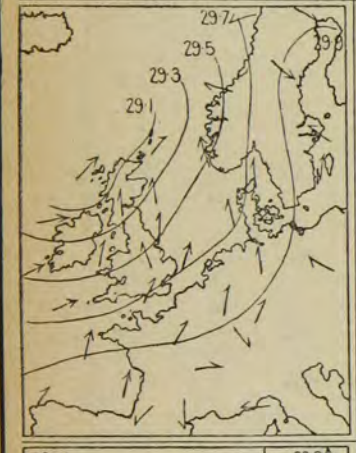
Weather fair generally, but dull on the west coast of Ireland and France, and rainy in the Channel Islands. Heavy rain falling later at many of our western and northern stations.

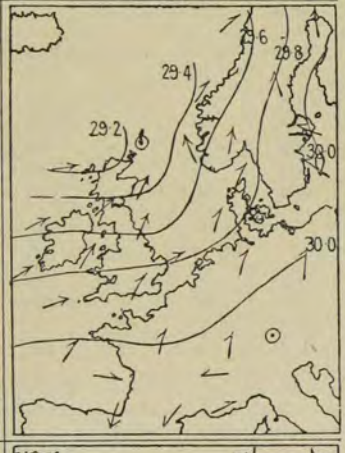
Temperature risen in most places; readings over our Islands ranging at 8 a.m. from 67° at Cambridge to 55° in the Shetlands. Subsequently rising to 75° at York, to 76° in London, and to 79° at Cambridge.

Wind Southerly or South-Westerly over the greater part of our Islands and their neighbourhood; strong to a gale in the west of Ireland. Variable in the north-east of England and the south of France. Subsequently increasing to a strong breeze at all our western stations.

Sea rough in the south-west, but moderate to smooth elsewhere.

Barometer rising in Scandinavia, Denmark, and Germany, but falling elsewhere quickly on our west coasts. Anticyclone lying over Spain, and deep depression off the west of Ireland. Depression subsequently moving northwards, but barometer continuing to fall in west.





Wednesday, July 27.

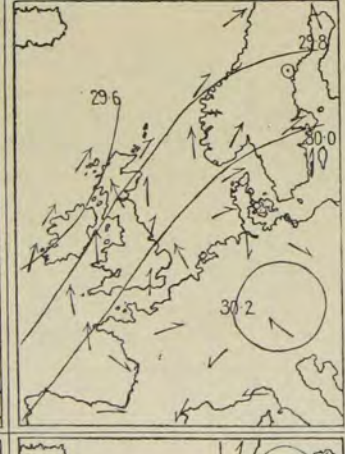
Weather fair generally, but cloudy and showery on our extreme north-west coasts. Showers falling later in many parts of the United Kingdom.

Temperature risen in most places; readings over our Islands ranging at 8 a.m. from 68° at Yarmouth to 56° at Malin Head and 55° in the Shetlands. Subsequently rising to 7 ° at Loughborough and in London, and to 77° at Cambridge and Yarmouth.

Wind Westerly at many of our western stations, but South-Westerly or Southerly in the east, and South-Easterly on the eastern shores of the North Sea; strong in force in many parts of our Islands.

Sea rough in the west and south generally.

Barometer rising at all but the Norwegian and Danish stations. Pressure still highest in Spain, but relatively high over the Baltic; depression of previous day now lying off the north-west of Scotland. Rise of barometer continuing all day.



Thursday, July 28.

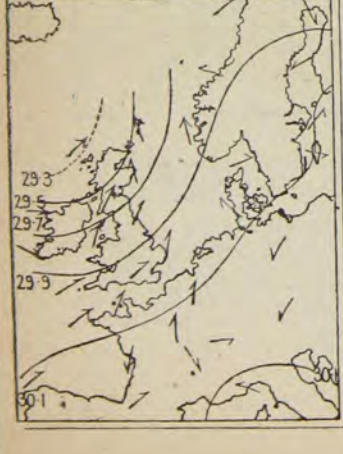
Weather fair generally, but dull and showery at several of our western and north-western stations.

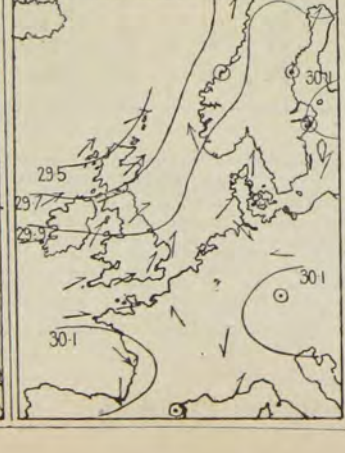
Temperature changed little and irregularly; readings over our Islands ranging at 8 a.m. from 67° at Scilly to 56° in the Shetlands. Subsequently rising to 75° at Spurn Head, York, and in London, and to 77° at Cambridge.

Wind variable in France, but Southerly or South-Westerly elsewhere; strong in force on our extreme western coasts. Subsequently increasing to Southerly gale at some of the Irish stations.

Sea rough in the west and south-west.

Barometer falling again in the west of Ireland, but rising in most other localities. Pressure highest over France and Germany, but new depression approaching our western coasts. Fall taking place later in most parts of our Islands.





Friday, July 29.

Weather fair generally, but showers falling in several parts of the United Kingdom.

Temperature risen slightly in most places; readings over our Islands ranging at 8 a.m. from 70° at Yarmouth to 55° in the Shetlands. Subsequently rising to 75° at York and Yarmouth, but maximum in London only 73°.

Wind Westerly on our extreme west and south-west coasts, but South-Westerly or Southerly in other parts of our Islands, and South-Easterly on the eastern shores of the North Sea, strong in force at all our north-western stations.

Sea rough in the south-west, west, and extreme north.

Barometer falling in most parts of Great Britain and France, but rising elsewhere. Anticyclone lying over Germany, with deep depression off the west of Scotland. Depression subsequently moving northwards, and barometer rising over the whole of the United Kingdom.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

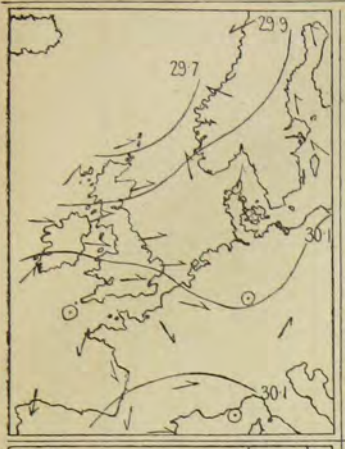
Weather

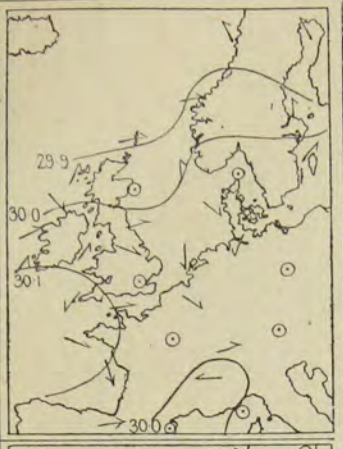
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Saturday, July 30.

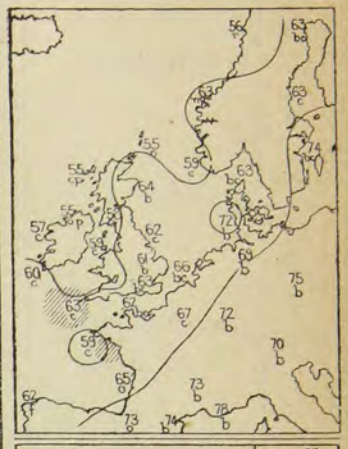
Weather fair generally, but dull in the west of France, and showery on our extreme north-west coasts. Severe thunderstorms occurring later over France and North Germany.

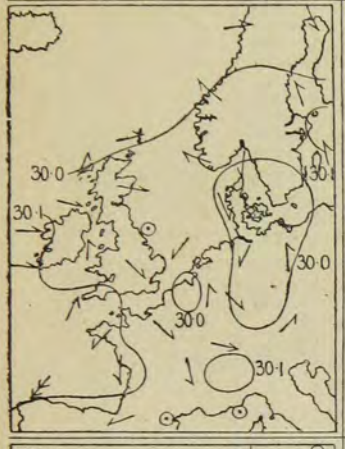
Temperature fallen a few degrees over our Islands and the north of France, but risen at the Continental stations; readings over the United Kingdom ranging at 8 a.m. from 64° at Prawle Point and Dungeness to 55° at Sumburgh Head, Stornoway, and Malin Head. Subsequently rising to 75° in London and 78° at Cambridge.

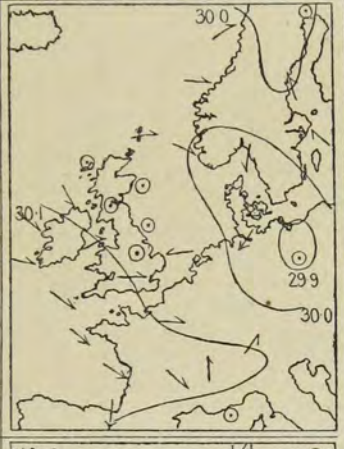
Wind moderate or fresh from West over the northern parts of our Islands, but Southerly or South-Easterly in Scandinavia, variable at the Channel stations and Northerly in the west of France. Subsequently backing to South-West on our extreme western coasts.

Sea rough at the mouth of the Channel, but moderate to smooth elsewhere.

Barometer rising at all but the Scandinavian stations. Band of high pressure (30·1 ins. and upwards) lying over the Bay of Biscay, the south of our Islands, the north of France, and South Germany, with a large depression to the northward of our Islands. Slight fall taking place at our southern stations.







Sunday, July 31.

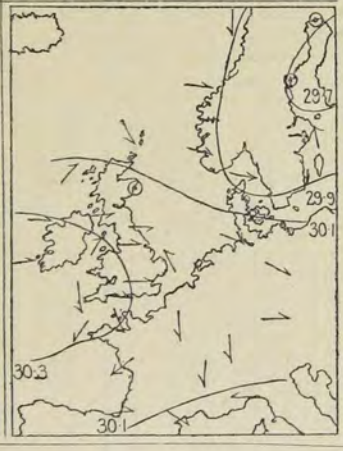
Weather fair over the greater part of our Islands, but cloudy and unsettled at several of the Continental stations, with rain at Fanö and Biarritz. Thunderstorms occurring later over the east and north of England.

Temperature fallen in most places; readings over our Islands ranging from 66° at Scilly to 53° at Nairn. Subsequently rising to 73° at Loughborough and 76° at Cambridge.

Wind light and variable in our Islands, but Northerly in Denmark, South-Easterly in Scandinavia, and North-Easterly in the west of France. Light North-Westerly breeze setting in late on our western coasts.

Sea moderate at the mouth of the Channel, but smooth elsewhere.

Barometer falling a little in Denmark, the Netherlands, and the south of our Islands, but rising elsewhere. Areas of high pressure lying respectively over the Bay of Biscay and the Baltic, with a large area of low pressure over Denmark and North Germany, and a small shallow depression over the Netherlands. Rise taking place later in all parts of our Islands.



Monday, August 1.

Weather fine generally, but showery on our extreme north-west coasts. Showers falling later at many of our northern and eastern stations.

Temperature fallen at most of the Continental stations, but changed irregularly in our Islands; readings over the United Kingdom ranging at 8 a.m. from 63° at Scilly, Hurst Castle, and Jersey to 55° in the Shetlands and Hebrides. Subsequently rising to 73° at Loughborough, 74° at Cambridge, and 76° in London.

Wind South-Westerly on our extreme north-west coasts, but Westerly or North-Westerly in other parts of our Islands, and also over the North Sea, and North-Easterly in the west of France.

Sea smooth generally.

Barometer rising at all but the Scandinavian stations. Anticyclone lying off our south-west coasts, with a large area of low pressure over Sweden. Anticyclone subsequently extending eastwards, and low pressure system moving northwards and becoming more strongly marked.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	61	46	59·9	49·7	54·4	+ 0·7	87	0	5	0·61	+0·08	*	*
	Stornoway	63	43	61·0	49·9	55·1	+ 0·4	92	0	7	1·40	+0·70	51	27
	Wick	69	40	64·9	47·4	55·5	+ 0·3	95	0	4	0·78	+0·26	*	*
	Lairg	68	40	64·7	47·3	55·4	+ 0·4	94	0	7	0·38	−0·30	*	*
	Glencarron	67	44	63·4	48·5	55·4	+ 0·4	94	0	6	1·88	?	? ‡	? ‡
	Fort Augustus	67	40	64·5	49·6	56·5	− 1·2	102	0	6	0·80	?	*	*
1. SCOTLAND, E.	Nairn	70	42	68·1	50·9	58·9	+ 1·2	118	0	3	0·32	−0·28	*	*
	Aberdeen	71	45	65·4	50·3	57·3	+ 0·1	107	0	5	0·74	+0·06	46	41
	Braemar	65	36	63·0	47·5	54·7	+ 0·1	89	0	6	0·47	−0·28	35‡	31‡
	Ochtertyre	71	41	68·6	49·7	58·5	+ 0·5	116	0	5	1·08	+0·30		
	Leith	72	48	68·0	53·1	60·0	+ 1·5	126	0	5	0·78	+0·16	*	*
	Marchmont	69	44	66·1	49·1	57·0	+ 0·5	105	0	6	0·83	+0·10	29	26
2. ENGLAND, N.E.	Alnwick Castle	68	47	65·7	51·7	58·2	+ 0·6	113	0	3	0·40	−0·27	*	*
	Durham	74	43	72·2	49·8	60·2	+ 1·9	127	0	5	0·37	−0·26	43	39
	Shields	71	47	68·1	52·4	59·7	+ 1·5	124	0	2	0·06	−0·55	*	*
	Scarborough	75	47	69·7	54·2	61·4	+ 1·9	136	0	5	0·78	+0·18	42‡	38‡
	York	75	44	72·1	51·3	61·0	− 0·3	133	0	4	0·84	+0·26	45	41
	Spurn Head	75	53	69·7	56·9	62·9	+ 2·9	146	0	3	0·19	?	*	*
3. ENGLAND, E.	Hillington	78	43	75·1	52·6	63·1	+ 2·7	148	0	3	0·86	+0·26	55	50
	Yarmouth	77	50	70·9	57·8	63·9	+ 2·5	153	0	4	0·64	+0·06	*	*
	Geldeston	77	47	74·2	54·9	63·9	+ 2·7	153	0	4	0·44	−0·06	54	50
	Cambridge	79	45	75·7	52·0	63·1	+ 0·4	148	0	1	0·04	−0·48	?	?
	Rothamsted	74	46	72·4	51·7	61·3	− 1·1	135	0	4	0·32	−0·28	*	*
	Ingatestone	73	48	72·5	53·6	62·4	− 0·5	143	0	3	0·25	−0·27	58‡	54‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	78	40	72·4	50·9	60·9	− 0·5	132	0	2	0·49	−0·11	50‡	46‡
	Loughborough	79	45	74·6	53·7	63·4	+ 1·4	150	0	2	0·19	−0·34	*	*
	Leicester	78	48	74·7	53·8	63·5	+ 1·6	151	0	2	0·14	−0·48	47	43
	Cheadle	74	47	69·4	51·5	59·8	− 0·3	125	0	3	0·91	+0·16	*	*
	Churchstoke	75	42	70·1	48·6	58·6	− 1·4	116	0	3	0·67	+0·09	51	47
	Hereford	78	46	74·2	50·8	61·7	+ 0·2	138	0	2	0·38	−0·15	*	*
	Cirencester	75	43	71·9	50·6	60·5	− 0·6	130	0	2	0·27	−0·45	57	53
	Oxford	74	47	71·6	53·7	62·0	+ 0·6	140	0	2	0·18	−0·37	54	50
5. ENGLAND, S.	London	76	47	75·0	55·0	64·3	+ 1·0	153	0	2	0·22	−0·38	54‡	50‡
	Strathfield Turgiss	78	44	75·0	50·6	62·0	+ 0·6	140	0	3	0·40	−0·12	*	*
	Dungeness	70	49	68·7	57·4	62·7	+ 1·0	145	0	3	0·14	−0·29	*	*
	Hastings (St. Leonard's)	72	53	69·2	57·0	62·7	+ 1·2	145	0	2	0·14	−0·34	65	61
	Southampton	77	50	72·6	55·1	63·2	+ 1·6	148	0	2	0·57	−0·01	61	57
	Hurst Castle	73	50	69·0	55·1	61·6	+ 0·3	137	0	2	0·34	−0·15	*	*
	Stowell	72	46	70·1	52·3	60·6	+ 0·1	130	0	3	0·29	?	54‡	50‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	66	43	63·3	50·5	56·5	− 0·5	102	0	7	1·99†	+0·74	*	*
	Glasgow	66	45	64·2	50·2	56·7	− 0·9	103	0	5	0·57	−0·26	28	25
	Ardrossan	65	50	62·9	53·4	57·8	+ 0·1	111	0	4	0·40	−0·34	*	*
	Glenlee	66	40	64·7	49·6	56·6	− 1·3	102	0	7	1·99	?	*	*
	Douglas (Isle of Man)	67	41	64·6	51·0	57·3	− 0·4	107	0	2	0·71	−0·03	49	45
7. ENGLAND, N.W.	Newton Reigny (Penrith)	69	43	65·9	49·1	56·9	− 1·5	104	0	6	0·54	−0·16	37	33
	Barrow-in-Furness	69	53	65·4	55·9	60·3	+ 0·6	128	0	3	0·35	−0·37	*	*
	Stonyhurst	71	44	67·2	51·7	58·9	− 0·3	118	0	3	0·64	−0·38	44	40
	Blackpool	71	50	66·6	55·5	60·7	+ 0·5	131	0	3	0·87	+0·17	36	33
	Manchester	74	48	69·1	52·5	60·2	− 0·1	127	0	4	0·80	−0·05	*	*
	Liverpool Obsy (Bidston)	74	51	69·4	55·0	61·7	+ 1·1	138	0	3	0·34	−0·31	*	*
	Llandudno	71	50	67·4	54·9	60·7	0·0	131	0	1	0·17	−0·43	33	30
	Holyhead	68	51	65·3	54·1	59·3	− 0·3	121	0	3	0·75	+0·18	*	*
8. ENGLAND, S.W.	Llandovery	74	39	70·9	48·3	58·8	− 1·6	118	0	5	1·39	+0·46	*	*
	Pembroke	65	53	62·9	55·9	59·2	− 0·6	120	0	5	1·11	+0·44	53	49
	Arlington (N. Devon)	70	44	67·3	50·6	58·4	− 2·1	115	0	3	0·69	−0·50	*	*
	Cullompton	74	43	71·5	49·7	59·8	− 1·7	125	0	3	0·50	−0·12	52	49
	Falmouth	71	52	68·8	55·2	61·5	+ 0·2	137	0	3	0·65	−0·09	57	54
	Plymouth	74	50	70·8	55·8	62·8	+ 1·1	146	0	2	0·54	−0·08	49	46
	Prawle Point	78	49	67·3	53·1	59·7	− 0·1	124	0	2	0·19	?	*	*
9. IRELAND, N.	Malin Head	66	52	63·4	53·3	58·0	+ 0·1	112	0	5	1·66	?	*	*
	Londonderry	?	47	?	51·6	?	?	?	?	5	0·93	+0·15	*	*
	Mullaghmore	67	50	63·9	52·1	57·6	− 1·9	109	0	5	1·29	+0·44	*	*
	Belmullet	64	47	62·3	54·1	57·9	+ 0·2	111	0	5	0·86	?	*	*
	Markree Castle	66	41	64·7	49·4	56·5	− 3·1	102	0	7	1·52	+0·75	46	42
	Brookeborough	67	40	64·4	50·1	56·8	− 2·9	104	0	4	0·78	?	*	*
	Armagh	67	45	65·7	51·4	58·1	− 1·7	113	0	6	1·01	+0·33	41	37
	Donaghadee	69	49	65·3	52·9	58·7	+ 0·5	117	0	5	0·63	0·00	*	*
	Edgeworthstown	67	41	65·9	49·6	57·2	− 2·6	106	0	5	0·87	+0·07	*	*
10. IRELAND, S.	Dublin	71	48	68·1	55·2	61·2	+ 1·4	134	0	3	0·59	0·00	46	42
	Parsonstown	68	44	65·6	51·3	58·0	− 1·4	112	0	5	1·08	+0·36	40	37
	Kilkenny	77	42	69·7	51·7	60·1	0·0	127	0	4	0·45	−0·13	*	*
	Waterford	72	43	68·6	53·0	60·3	− 0·3	128	0	4	0·57	−0·11	*	*
	Roche's Point	67	49	65·3	54·4	59·5	− 1·2	123	0	4	0·83	+0·09	*	*
	Valencia	67	50	65·4	54·7	59·7	+ 0·5	124	0	5	0·94	0·00	55	51
	Killarney	69	45	65·9	52·8	58·9	− 0·7	118	0	6	1·26	?	*	*
	Foynes	70	48	66·6	52·5	59·1	− 0·1	120	0	6	0·56	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	71	54	68·3	57·9	62·7	+ 1·9	145	0	3	0·60	+0·07	*	*
	Jersey (Noirmont)	72	53	69·6	57·4	63·1	+ 1·2	148	0	1	0·15	−0·35	65	62

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked 𝒮 with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

(OFFICIAL COPY.)

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 31.] *Second Series.* WEEK ENDING MONDAY, 8TH AUGUST, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 124.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	74	43	63·9	50·4	56·8	2 above.	104	+16	0	0	1278	+235	547	+ 37
	1. SCOTLAND, EAST	77	36	68·9	50·5	59·2	2 above.	120	+12	0	0	1651	+253	584	+ 41
	2. ENGLAND, N.E.	82	39	69·8	53·1	61·0	1 above.	133	+17	0	0	1732	+146	564	+ 82
	3. ENGLAND, EAST	89	42	75·8	50·2	62·3	1 above.	142	+14	0	0	1788	+ 41	675	+168
	4. MIDLAND COUNTIES	86	38	77·3	48·6	62·1	1 above.	141	+17	0	0	1846	+ 89	670	+166
	5. ENGLAND, SOUTH	88	41	76·7	51·0	63·1	2 above.	148	+12	0	0	1894	+ 15	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	73	39	66·4	50·6	58·0	1 above.	112	+ 3	0	0	1612	+136	445	+ 47
	7. ENGLAND, N.W.	81	38	70·3	53·8	61·6	2 above.	137	+24	0	0	1677	+114	501	+118
	8. ENGLAND, S.W.	83	38	73·4	51·2	61·7	1 above.	138	+12	0	0	1898	+107	405	+172
	9. IRELAND NORTH	76	39	67·7	52·8	59·8	1 above.	125	+14	0	0	1826	+275	373	+ 23
	10. IRELAND, SOUTH	83	42	71·7	54·2	62·4	3 above.	143	+24	0	0	2061	+284	336	+ 97
	— CHANNEL ISLANDS	83	50	72·7	58·0	64·9	4 above.	160	+26	0	0	1973	+ 65	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 124.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	4	10	4 more.	129	− 3	23·1	+ 3·8	21	19	722	−123	25	− 4
	1. SCOTLAND, EAST	2	5	2 less.	95	−15	11·7	− 6·0	48	44	1010	+ 46	35	+ 2
	2. ENGLAND, N.E.	1	less than ½	6 less.	84	−23	7·6	− 7·6	54	50	1003	+117	35	+ 4
	3. ENGLAND, EAST	0	–	5 less.	77	−33	8·7	− 5·4	77	73	1249	+175	44	+ 6
	4. MIDLAND COUNTIES	0	–	6 less.	74	−34	9·2	− 6·8	68	63	1100	+156	38	+ 5
	5. ENGLAND, SOUTH	0	–	5 less.	72	−31	9·0	− 6·0	76	72	1196	+184	42	+ 6
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	3	7	1 less.	102	−19	19·9	− 5·0	52	49	1081	+160	37	+ 5
	7. ENGLAND, N.W.	1	less than ½	7 less.	78	−34	11·6	− 6·9	59	55	1139	+211	39	+ 7
	8. ENGLAND, S.W.	0	–	8 less.	78	−40	10·9	−12·2	80	76	1373	+289	48	+10
	9. IRELAND, NORTH	3	10	3 more.	98	−37	15·8	− 3·9	41	38	1027	+158	36	+ 6
	10. IRELAND, SOUTH	1	1	6 less.	82	−45	13·4	− 8·7	43	41	1228	+251	43	+ 9
	— CHANNEL ISLANDS	0	–	5 less.	86	−39	9·2	− 8·1	85	83	1486	+194	52	+ 6

General Remarks.

Weather continued fine and dry over England during the whole period, but in the northern parts of Ireland and Scotland the conditions, though fair or fine at first, subsequently became dull and unsettled with some heavy falls of rain.

Temperature has been above the mean in all districts, the excess ranging from 1° to 4°. The highest of the maxima, which were generally recorded on the 6th, varied from 73° to 83° in Ireland and Scotland, and from 82° to 89° over England. The lowest of the minima, which were registered during the earlier days of the period, ranged from 36° in "Scotland, E." to 42° in "Ireland, S." and "England, E.", and to 43° in "Scotland, N."; in the "Channel Islands" the lowest reading was 50°. The range of temperature over central and southern England was very large; at Strathfield Turgiss it was as much as 47°, and at Hereford 48°.

Rainfall has been more than the mean in "Scotland, N." and "Ireland, N.", but less in all other districts; over England rain has been almost entirely absent.

Bright sunshine has been more prevalent than it was last week in nearly all places, the percentage of the possible amount of duration ranging from 19 in "Scotland, N." to between 50 and 75 over the greater part of England, and to 83 in the "Channel Islands".

Depressions observed.—During nearly the whole of this period the distribution of pressure over our Islands has been anticyclonic, so that no depressions have appeared in our immediate neighbourhood. Towards the end of the time, however, the anticyclone having moved more to the eastward, some disturbances skirted our extreme western and northern coasts and passed on to Scandinavia. Light and rather variable breezes were reported during the earlier part of the period, but subsequently moderate to fresh winds from between South-West and North-West became general.

A 51946. 350.—8/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

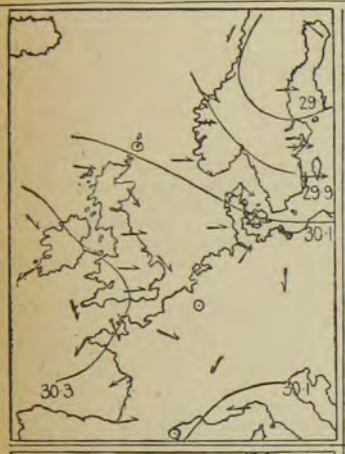
Weather

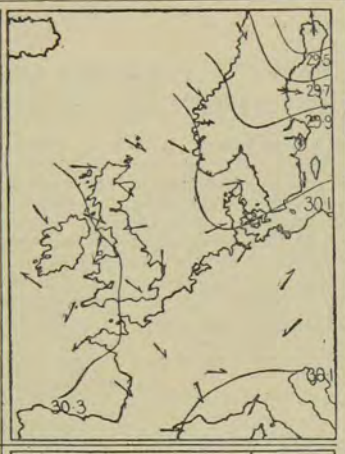
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, August 2.

Weather fine generally, but dull in the northern parts of Scandinavia and Scotland, with rain at Christiansund. Showers falling later at some of our eastern stations.

Temperature risen a little in our Islands, but fallen at most of the Continental stations; readings over the United Kingdom ranging at 8 a.m. from 65° at Jersey to 53° in the Shetlands. Subsequently rising to 73° at Cambridge and 76° in London.

Wind moderate or fresh from West or North-West over the North Sea and the northern parts of our Islands, but light from North in the south of England and moderate from North-East in the west of France. Subsequently veering to the Northward in many parts of our Islands.

Sea moderate to smooth.

Barometer falling in the north of Scandinavia, but rising elsewhere. Anticyclone lying over our south-west coasts, and band of high pressure extending thence to Central Europe, but large depression situated over the north of Sweden. Depression subsequently moving north-eastwards.

Wednesday, August 3.

Weather fine generally, but dull in the west of Norway, and rainy at Cuxhaven, Sumburgh Head, and Valencia.

Temperature risen a little in the north of our Islands, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 67° at Jersey to 51° in the Shetlands. Subsequently rising to 76° in London, 77° at Cambridge, and 78° at Loughborough.

Wind South-Easterly in the west of Ireland, but North-Westerly over the North Sea and our east coasts, and North-Easterly or Easterly at our southern and the French stations; light or moderate in force generally.

Sea rather rough at Valencia, but smooth elsewhere.

Barometer rising at all but our extreme western stations. Large anticyclone covering the whole of our Islands and the north of France, with low pressure systems over the north of Sweden and the south-east of France. Slight fall taking place generally later.

Thursday, August 4.

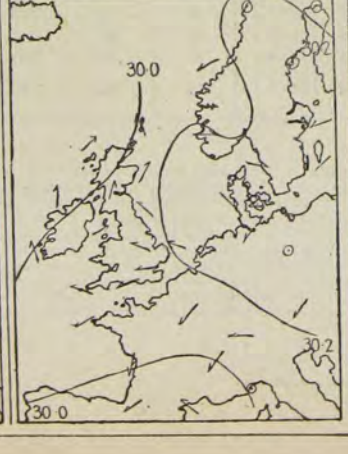
Weather fine generally, but dull in the Shetlands as well as in the north-west of Ireland. Solar or lunar halos seen later in many parts of England.

Temperature risen a little in most places; readings over our Islands ranging at 8 a.m. from 67° at Holyhead to 51° in the Shetlands. Subsequently rising to 78° at Cambridge, 79° at York, and 81° at Loughborough.

Wind light to fresh from the Eastward at our southern and the French stations, but Southerly on our western and northern coasts, variable in the east, and North-Westerly on the eastern shores of the North Sea.

Sea moderate to smooth.

Barometer rising steadily in Scandinavia and Denmark, but falling slightly in our Islands and France. Anticyclone now lying over England, the North Sea, and the Netherlands, and depressions beginning to move northwards outside our western coasts.



Friday, August 5.

Weather fine generally, but dull in the west of Ireland. Rain falling later at several of our western and northern stations; heavily in the north of Ireland.

Temperature risen over France and the east of Great Britain, but changed irregularly elsewhere; readings over our Islands ranging at 8 a.m. from 68° at Aberdeen to 59° at York and 57° at Sumburgh Head. Subsequently rising to 80° at Liverpool and Cambridge, and 82° at Loughborough.

Wind still Easterly at our southern and the French stations, but South-Easterly or Southerly on our more northern coasts, and North-Westerly on the eastern shores of the North Sea; fresh in force in the west of Ireland. Subsequently veering to South-West in the extreme north-west.

Sea rather rough at Prawle Point, but moderate to smooth elsewhere.

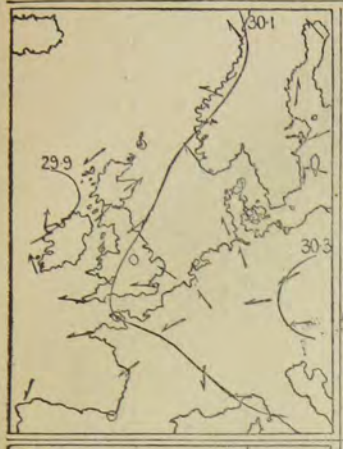
Barometer falling at all but the Swedish, German, and French stations. Anticyclone lying over the Netherlands and the eastern parts of the North Sea, and depressions moving northwards along the Irish and Scotch coasts. No important change later.

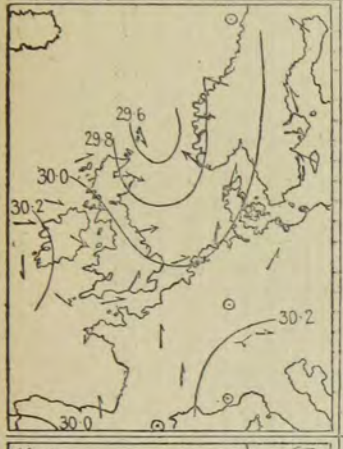
SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

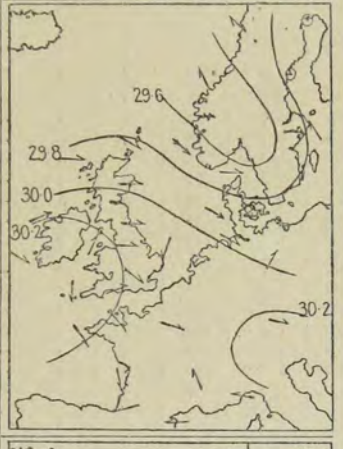
Synoptic Charts.

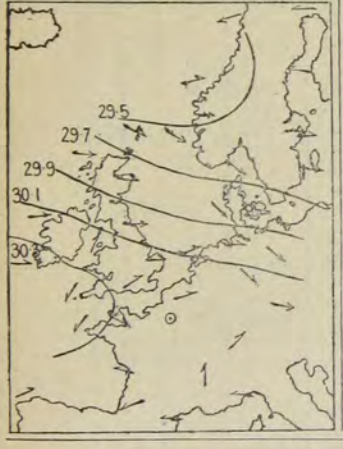
PRESSURE AND WIND.

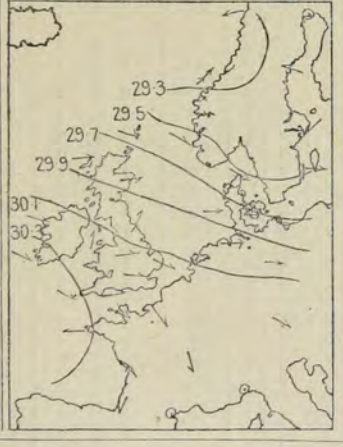
8 a.m. | **6 p.m.**











Weather

During the 24 hours succeeding

8 a.m. on the dates given.

Saturday, August 6.

Weather fine at the English and most of the Continental stations, but rainy in Ireland and the west and north of Scotland. Rain falling later in the west and north generally,—heavily in the north of Ireland.

Temperature fallen a little on our western and northern coasts, but risen elsewhere; readings over our Islands ranging at 8 a.m. from 69° at Prawle Point and Hurst Castle to 55° in the Shetlands and Hebrides. Subsequently rising to 86° at Loughborough, 87° in London, and 89° at Cambridge.

Wind calm in the east of Scotland and light from East or North-East over Germany, France, and the south of England, but South-Easterly or Southerly elsewhere; fresh or strong in force in the west of Ireland.

Sea rather rough at Valencia, but slight elsewhere.

Barometer falling at all but the Swedish, German, and French stations. Anticyclone now lying over Germany, and complex depression appearing off our north-west coast. Depression subsequently advancing slowly north-eastwards.

Sunday, August 7.

Weather fair generally, but dull in the extreme north, with rain in the Shetlands and south of Norway. Rain falling later in the north of Scotland generally.

Temperature fallen a little in the west and extreme north, but risen elsewhere; readings over our Islands ranging at 8 a.m. from 72° at Cambridge to 53° in the Shetlands. Subsequently rising to 78° at Jersey and Oxford and 82° in London and at Cambridge.

Wind fresh North-Westerly on our northern coasts and moderate Westerly in the south, but Southerly or South-Easterly in France and also on the eastern shores of the North Sea. Subsequently backing to West in the north.

Sea rather rough off the north-west of Ireland, and the north of Scotland, but moderate to smooth elsewhere.

Barometer rising in France and the west and south of our Islands, but falling elsewhere. Depression of previous day now lying near the Shetlands, and new high pressure system appearing off the west of Ireland. Depression subsequently moving away to Scandinavia.

Monday, August 8.

Weather fine in France, Germany, and the south of our Islands, but cloudy elsewhere, with rain in the west of Norway. A little rain falling later on our extreme north and north-west coasts.

Temperature risen in the west and north, but fallen in most other localities; readings over our Islands ranging at 8 a.m. from 73° at Prawle Point to 53° in the Shetlands. Subsequently rising to 82° at Loughborough and Oxford, and 85° in London and at Cambridge.

Wind strong from the Westward and North-Westward over the northern parts of our Island, and also over the North Sea, but Easterly in the north of Scandinavia as well as at most of the French stations.

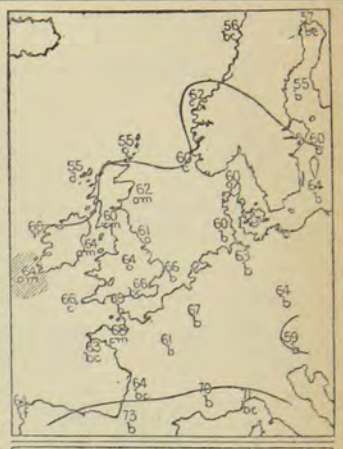
Sea rather rough on our extreme north and north-west coasts.

Barometer falling a little in Scandinavia and the north of our Islands, but rising elsewhere. Anticyclone lying off our south-west coasts, with a large depression off the west of Norway and a subsidiary disturbance over the south of Sweden. Both systems subsequently moving northwards, but slight fall of barometer taking place over England.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➤ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	62	43	58·0	49·0	53·2	− 0·6	78	0	5	1·24	+0·64	*	*
	Stornoway	65	47	61·7	50·3	55·7	+ 1·0	96	0	5	1·13	+0·36	21	19
	Wick	71	45	65·6	50·6	57·7	+ 2·6	110	0	5	0·38	−0·14	*	*
	Lairg ℌ	74	46	66·4	50·6	58·0	+ 3·0	112	0	4	0·77	+0·12	*	*
	Glencarron ℌ	72	46	64·5	51·2	57·5	+ 2·5	109	0	4	2·28	?	? ‡	? ‡
	Fort Augustus ℌ	74	45	67·4	50·7	58·6	+ 1·1	116	0	3	0·24	?	*	*
1. SCOTLAND, E.	Nairn	77	47	68·7	52·4	60·1	+ 2·7	127	0	4	0·23	−0·27	*	*
	Aberdeen	71	42	67·4	51·0	58·7	+ 1·7	117	0	2	0·45	−0·24	47	43
	Braemar ℌ	74	36	67·6	47·1	56·7	+ 2·2	103	0	3	0·59	−0·21	45‡	41‡
	Ochtertyre ℌ	76	40	71·0	49·9	59·8	+ 2·3	125	0	1	0·98	+0·19		
	Leith	74	45	69·0	52·1	60·0	+ 1·8	126	0	1	0·41	−0·19	*	*
	Marchmont ℌ	77	41	69·7	50·7	59·6	+ 3·1	123	0	2	0·17	−0·62	51	47
2. ENGLAND, N.E.	Alnwick Castle	69	42	65·0	52·7	58·5	+ 1·4	116	0	1	0·03	−0·65	*	*
	Durham	78	39	74·3	51·3	62·1	+ 4·4	141	0	0	—	−0·64	52	48
	Shields	75	46	67·4	53·6	60·1	+ 2·0	127	0	0	—	−0·62	*	*
	Scarborough ℳ	74	47	68·8	53·2	60·5	+ 1·3	130	0	0	—	−0·60	55‡	51‡
	York	82	43	76·4	52·1	63·4	+ 3·0	150	0	1	0·01	−0·55	54	50
	Spurn Head	71	52	66·9	55·9	61·1	+ 1·3	134	0	1	0·12	?	*	*
3. ENGLAND, E.	Hillington ℳ	87	43	78·8	53·9	65·6	+ 5·3	165	0	0	—	−0·60	76	72
	Yarmouth	81	48	69·7	55·0	61·9	+ 0·7	139	0	0	—	−0·53	*	*
	Geldeston	82	44	74·4	47·6	60·2	− 0·8	127	0	1	0·01	−0·46	76	72
	Cambridge	89	45	80·6	48·0	63·3	+ 0·9	149	0	0	—	−0·52	?	?
	Rothamsted	84	42	76·1	46·2	60·3	− 1·7	128	0	0	—	−0·58	*	*
	Ingatestone	83	47	75·4	50·6	62·3	− 0·3	142	0	0	—	−0·49	79‡	75‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	84	40	75·4	49·1	61·5	+ 0·6	137	0	0	—	−0·58	54‡	51‡
	Loughborough	86	42	79·4	49·7	63·7	+ 2·0	152	0	0	—	−0·55	*	*
	Leicester	86	42	80·4	49·7	64·1	+ 2·2	155	0	0	—	−0·62	63	59
	Cheadle ℳ	80	46	73·4	50·5	61·3	+ 0·4	135	0	0	—	−0·79	*	*
	Churchstoke ℳ	80	38	75·0	47·2	60·3	− 0·6	138	0	0	—	−0·58	75	71
	Hereford ℳ	86	38	80·1	46·7	62·4	+ 1·0	143	0	0	—	−0·53	*	*
	Cirencester	84	40	77·1	45·9	60·6	− 0·4	130	0	0	—	−0·72	77	73
	Oxford	84	44	77·3	49·6	62·6	+ 1·2	144	0	0	—	−0·55	73	70
5. ENGLAND, S.	London	87	48	79·7	51·1	64·5	+ 1·5	158	0	0	—	−0·50	69‡	66‡
	Strathfield Turgiss ℳ	88	41	81·6	44·3	62·0	+ 0·6	140	0	0	—	−0·52	*	*
	Dungeness	80	50	71·4	54·4	62·5	+ 0·8	144	0	0	—	−0·44	*	*
	Hastings (St. Leonard's)	80	53	73·9	56·1	64·5	+ 3·0	158	0	0	—	−0·49	77	73
	Southampton	86	49	80·1	50·6	64·5	+ 2·8	158	0	0	—	−0·59	80	76
	Hurst Castle	78	49	73·9	52·4	62·4	+ 1·1	143	0	0	—	−0·50	*	*
	Stowell ℳ	83	44	76·3	47·8	61·2	+ 0·7	134	0	0	—	?	77‡	73‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	70	46	64·1	52·1	57·7	+ 0·7	110	0	4	1·23†	+0·08	*	*
	Glasgow	73	41	66·6	49·5	57·5	0·0	109	0	2	0·90	+0·06	38	35
	Ardrossan	70	50	65·1	53·4	58·9	+ 1·2	118	0	3	1·08	+0·25	*	*
	Glenlee	73	39	67·9	47·7	57·2	− 0·5	106	0	3	0·40	?	*	*
	Douglas (Isle of Man)	72	42	68·1	50·5	58·8	+ 1·1	118	0	1	0·03	−0·73	66	62
7. ENGLAND, N.W.	Newton Reigny (Penrith)	76	38	70·2	48·5	58·7	+ 4·4	117	0	1	0·04	−0·66	62	57
	Barrow-in-Furness	74	53	68·0	56·6	61·9	+ 2·0	139	0	1	0·02	−0·73	*	*
	Stonyhurst	79	44	70·3	52·8	61·0	+ 1·8	133	0	0	—	−1·03	60	56
	Blackpool ℳ	76	49	68·9	56·0	62·1	+ 1·7	141	0	0	—	−0·70	51	48
	Manchester	81	43	73·0	51·3	61·5	+ 1·1	137	0	1	0·01	−0·80	*	*
	Liverpool Obsr (Bidston)	80	52	72·7	55·7	63·7	+ 3·0	152	0	0	—	−0·64	*	*
	Llandudno ℳ	76	49	70·6	55·1	62·4	+ 1·7	143	0	1	0·02	−0·58	61	58
	Holyhead	73	49	68·7	54·7	61·3	+ 1·7	135	0	0	—	−0·60	*	*
8. ENGLAND, S.W.	Llandovery	82	38	78·4	45·1	60·8	+ 0·4	132	0	1	0·02	−0·95	*	*
	Pembroke	68	52	66·1	55·9	60·7	+ 1·0	131	0	0	—	−0·63	74	70
	Arlington (N. Devon)	82	44	73·1	48·6	60·1	− 0·3	127	0	1	0·03	−1·22	*	*
	Cullompton ℳ	83	41	77·4	44·2	59·8	− 1·6	125	0	0	—	−0·61	82	78
	Falmouth	73	52	69·1	55·0	61·6	+ 0·5	137	0	0	—	−0·77	81	78
	Plymouth	81	52	77·2	54·8	65·3	+ 3·6	163	0	0	—	−0·63	81	78
	Prawle Point	76	52	72·7	55·1	63·4	+ 3·6	150	0	0	—	?	*	*
9. IRELAND, N.	Malin Head	70	49	64·7	54·0	59·0	+ 2·0	119	0	3	0·97	?	*	*
	Londonderry	?	44	?	52·7	?	?	?	?	2	1·03	+0·24	*	*
	Mullaghmore	71	53	67·4	56·1	61·4	+ 2·0	136	0	4	1·29	+0·49	*	*
	Belmullet	69	48	64·9	55·0	59·7	+ 2·0	124	0	4	2·19	?	*	*
	Markree Castle	73	41	68·9	51·3	59·6	+ 0·1	123	0	3	1·17	+0·37	31	29
	Brookeborough	73	39	68·2	49·2	58·1	− 1·5	113	0	3	1·36	?	*	*
	Armagh	74	43	70·6	51·6	60·5	+ 0·9	130	0	3	0·67	+0·03	50	47
	Donaghadee	75	53	66·3	55·4	60·5	+ 2·3	130	0	2	0·23	−0·42	*	*
	Edgeworthstown	76	42	70·3	50·1	59·6	0·0	123	0	2	0·48	−0·31	*	*
10. IRELAND, S.	Dublin	79	47	72·9	54·5	63·2	+ 3·5	148	0	1	0·02	−0·60	55	52
	Parsonstown	75	45	71·9	52·7	61·7	+ 2·4	138	0	2	0·12	−0·63	41	39
	Kilkenny	80	43	75·0	51·4	62·5	+ 2·6	144	0	0	—	−0·64	*	*
	Waterford	83	47	75·1	52·6	63·2	+ 2·9	148	0	0	—	−0·74	*	*
	Roche's Point	78	52	70·4	56·9	63·3	+ 2·9	149	0	0	—	−0·75	*	*
	Valencia	67	49	66·4	56·3	61·1	+ 1·9	134	0	3	0·30	−0·69	34	32
	Killarney	76	42	70·9	52·1	60·9	+ 1·3	132	0	2	0·07	?	*	*
	Foynes	76	55	70·9	56·9	63·5	+ 4·4	151	0	2	0·36	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	71	57	68·7	58·6	63·4	+ 2·6	150	0	0	—	−0·53	*	*
	Jersey (Noirmont)	83	50	76·7	57·3	66·4	+ 4·5	171	0	0	—	−0·50	85	83

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 32.] *Second Series.* WEEK ENDING MONDAY, 15TH AUGUST, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

DISTRICTS. (See p. 128.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	62	38	55·1	44·3	49·4	6 below.	52	−36	0	0	1330	+196	547	+ 37
1. SCOTLAND, EAST	71	38	60·9	46·2	53·1	3 below.	78	−30	0	0	1729	+219	584	+ 41
2. ENGLAND, N.E.	75	37	61·7	47·1	54·0	4 below.	84	−32	0	0	1816	+214	564	+ 82
3. ENGLAND, EAST	79	38	67·4	49·9	58·1	3 below.	113	−15	0	0	1898 *	+ 24	675	+168
4. MIDLAND COUNTIES	76	36	66·0	47·3	56·1	5 below.	99	−25	0	0	1945	+ 63	670	+166
5. ENGLAND, SOUTH	86	35	70·8	52·2	60·9	1 below.	132	− 4	0	0	2026	+ 10	524	+151
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	69	36	61·2	46·7	53·5	4 below.	81	−28	0	0	1693	+105	445	+ 47
7. ENGLAND, N.W.	69	33	61·3	49·4	55·0	5 below.	91	−27	0	0	1768	+ 87	501	+118
8. ENGLAND, S.W.	82	33	68·0	49·7	58·3	2 below.	114	−12	0	0	2012	+ 95	405	+172
9. IRELAND NORTH	68	33	60·5	48·6	54·2	4 below.	85	−26	0	0	1911	+248	373	+ 23
10. IRELAND, SOUTH	78	35	66·0	48·7	56·8	3 below.	104	−15	0	0	2165	+270	336	+ 97
— CHANNEL ISLANDS	75	49	66·7	55·7	60·9	1 below.	132	− 3	0	0	2105	+ 60	170	+ 77

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 128.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	6	3	3 less.	135	− 1	23·4	+ 3·5	28	26	750	−118	24	− 5
1. SCOTLAND, EAST	3	1	6 less.	98	−17	11·8	− 6·6	34	32	1044	+ 42	34	+ 1
2. ENGLAND, N.E.	2	2	4 less.	86	−25	7·8	− 8·0	39	37	1042	+117	35	+ 4
3. ENGLAND, EAST	2	3	2 less.	79	−35	9·0	− 5·6	45	44	1293 †	+178	44	+ 6
4. MIDLAND COUNTIES	2	2	5 less.	76	−36	9·4	− 7·3	44	43	1144	+160	38	+ 5
5. ENGLAND, SOUTH	1	less than ½	5 less.	73	−33	9·0	− 6·5	58	57	1254	+197	42	+ 6
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	2	2	8 less.	104	−21	20·1	− 6·2	41	39	1122	+159	37	+ 5
7. ENGLAND, N.W.	2	3	5 less.	80	−36	11·9	− 7·3	32	31	1171	+206	39	+ 7
8. ENGLAND, S.W.	1	less than ½	8 less.	79	−43	10·9	−13·0	70	69	1443	+313	49	+11
9. IRELAND, NORTH	4	4	3 less.	102	−38	16·2	− 4·3	30	29	1057	+157	35	+ 5
10. IRELAND, SOUTH	2	1	7 less.	84	−47	13·5	− 9·4	41	40	1269	+253	43	+ 9
— CHANNEL ISLANDS	1	3	3 less.	87	−43	9·5	− 8·4	80	79	1566	+215	53	+ 7

General Remarks.

Weather has continued fair as a whole in almost all parts of the Kingdom; in the extreme north and north-west, however, slight falls of rain have been very frequent, while on the 13th some heavy showers were experienced in some parts of south-eastern England.

Temperature has been below the mean in all districts, the deficit ranging from 1° in "England, S." and the "Channel Islands", to 5° in the "Midland Counties" and "England, N.W." and to 6° in "Scotland, N." The highest of the maxima, which were generally recorded on the 9th, varied from 62° in "Scotland, N." to 82° in "England, S.W." and 86° in "England, S." The lowest of the minima, which were registered either on the 14th or 15th, ranged from 33° over the west of England and north of Ireland, to 49° in the "Channel Islands". Over the northern parts of Ireland and England the minima were unusually low for the season, sharp ground frosts being experienced in many places.

Rainfall has been less than the mean in all districts. Over the southern parts of England and Ireland the total amount has been very trifling.

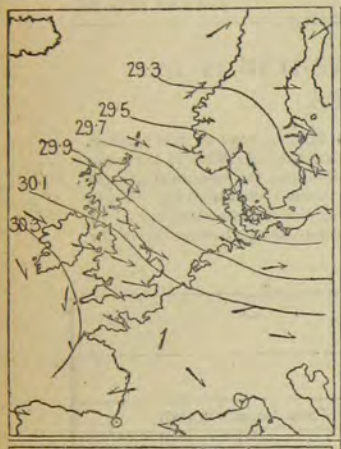
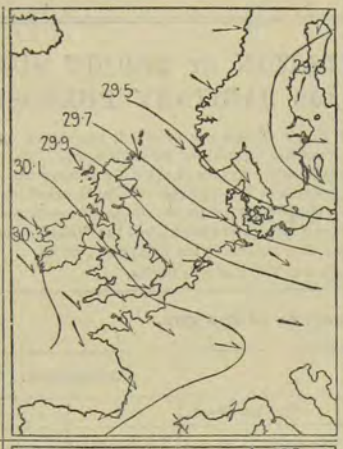
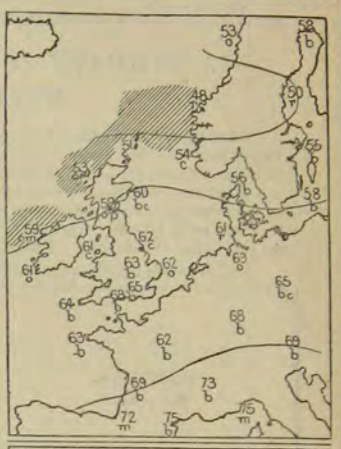
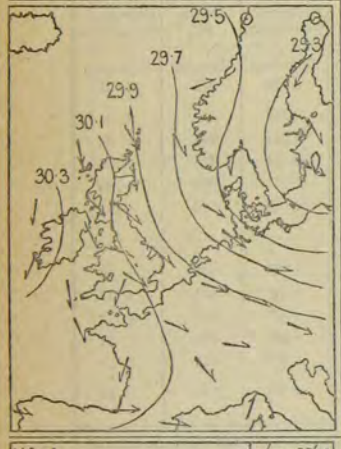
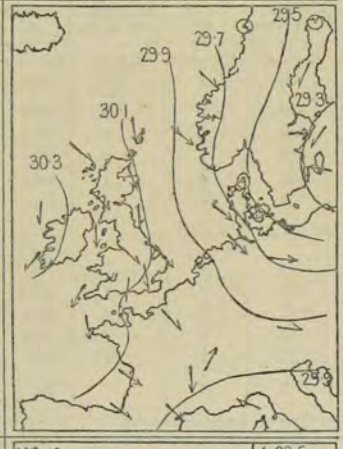
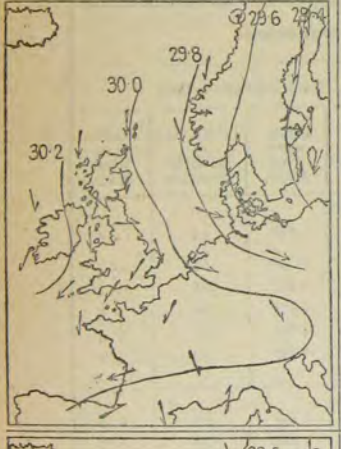
Bright sunshine shows a very general decrease, the percentage of the possible amount of duration ranging from between 26 and 40 in most of the more northern districts to 69 in "England, S.W." and to 79 in the "Channel Islands."

Depressions observed.—No depressions appeared in our immediate neighbourhood until towards the end of the period, when some shallow disturbances appeared over the southern parts of our Islands and the north of France. Moderate to fresh Northerly winds were prevalent over the United Kingdom during the earlier part of the week, but subsequently light and somewhat variable breezes became general.

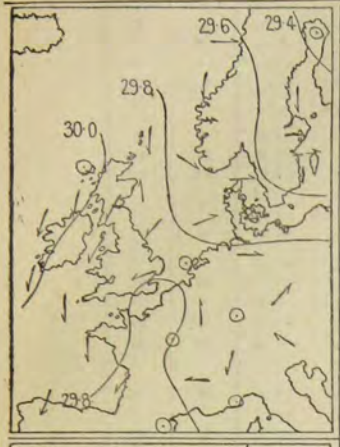
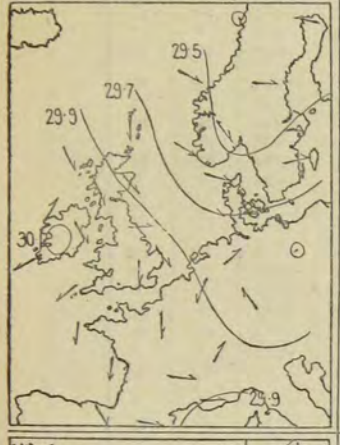
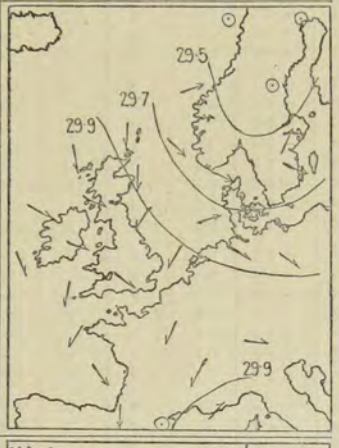
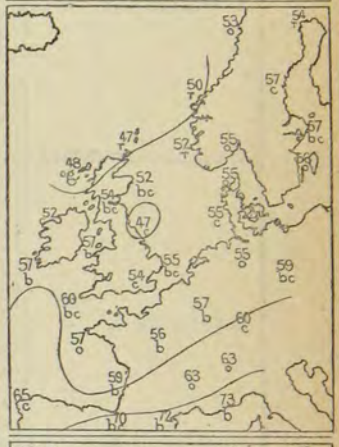
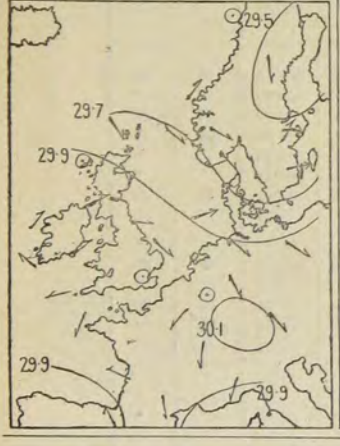
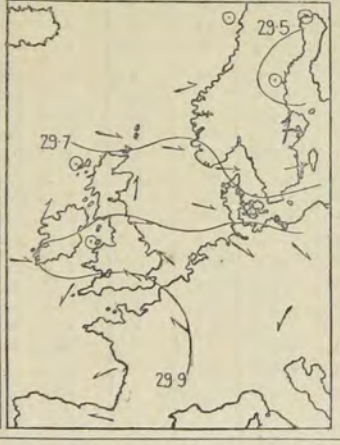
* This value has been altered somewhat in consequence of an error in last week's Return from Hillingdon.
† This value has been altered slightly owing to the receipt of further information.

A 51985. 350.—8/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, August 9.** *Weather* fine generally, but rainy at some of the Scandinavian stations, as well as in the north of Ireland. Slight rain falling later at several of our western and northern stations. *Temperature* fallen in most places; readings over our Islands ranging at 8 a.m. from 69° at Prawle Point to 51° in the Shetlands. Subsequently rising to 81° in London and 82° at Prawle Point. *Wind* light and variable in the north of Scandinavia and the south and east of France, but Westerly or North-Westerly elsewhere; strong in force at many of our more northern stations. *Sea* rough on our extreme north and north-west coasts. *Barometer* rising in the west and north of our Islands, and also in France, but falling elsewhere. Anticyclone lying off our south-west coasts, with two large depressions over the northern parts of Scandinavia. Anticyclone subsequently extending northwards, and depressions moving south-eastwards.	
		**Wednesday, August 10.** *Weather* dull in the extreme north and north-west, with rain at Bodö, Haparanda, and Sumburgh Head, but fine elsewhere. *Temperature* fallen at all but the Scandinavian stations; readings over our Islands ranging at 8 a.m. from 64° at Hurst Castle to 48° in the Shetlands. Maxima over England from 5° to 10° lower than on previous day. *Wind* chiefly Northerly or North-Westerly; moderate in force on our southern coasts, but strong in the north, with a gale at Aberdeen. *Sea* rough in the extreme north and north-west. *Barometer* rising in our Islands and Scandinavia, but falling elsewhere. Anticyclone lying over and to the westward of Ireland, with a large depression over the Baltic. Slight fall taking place later in the south of our Islands.	
		**Thursday, August 11.** *Weather* fine over England, Ireland, France, and Spain, but cloudy elsewhere, with passing showers at Aberdeen. Showers falling later at most of our northern stations. *Temperature* fallen in most places; readings over our Islands ranging at 8 a.m. from 66° at Prawle Point to 46° at Sumburgh Head. Maxima below 70° at all but our extreme southern stations. *Wind* North-Easterly in France and the south of our Islands, but Northerly or North-Westerly elsewhere; strong in force over Scandinavia and Denmark. Subsequently shifting to South in the south-east of England. *Sea* rather rough at Stornoway and Spurn Head, but moderate to smooth elsewhere. *Barometer* falling at all but the Scandinavian, Danish, and German stations. Anticyclone still lying over our extreme western coasts, with low pressure systems over the Baltic and Gulf of Genoa. Fall continuing in our Islands and France all day.	
		Friday, August 12. *Weather* fine in France, Germany, and the south-west of our Islands, but cloudy elsewhere, with rain in the south of Sweden as well as in the northern parts of Ireland and Scotland. Showers falling later in many parts of the United Kingdom. *Temperature* changed little and irregularly; readings over our Islands ranging at 8 a.m. from 63° at Jersey to 47° in the Shetlands. Maxima below 70° at all but our extreme southern stations. *Wind* Northerly in Scandinavia and North-Westerly or Westerly over the North Sea and the north and east of our Islands, but North-Easterly in France. Subsequently becoming light and variable in our Islands. *Sea* moderate to smooth. *Barometer* falling at all but the German stations. High pressure systems lying over the south-west of our Islands, Germany, and the north-east of France, with a depression over the Baltic. Shallow depressions subsequently forming over the United Kingdom.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 p.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, August 13.** *Weather* fine in the north and east of Scotland, and also on our south-west coasts, but cloudy elsewhere, with rain in the Netherlands, the east of England, and the west of Norway. Rain falling later over the south and south-east of England. *Temperature* fallen generally; readings over our Islands ranging at 8 a.m. from 63° at Hurst Castle to 46° in the Shetlands. *Wind* moderate Northerly and North-Easterly over our Islands and the west of France, but Westerly on the eastern shores of the North Sea, and variable over Eastern France. *Sea* rough at Mullaghmore, but moderate to smooth elsewhere. *Barometer* falling at the English, German, and French stations, but rising in most other localities. Pressure highest over our extreme western coasts and relatively high in Germany, with a depression over the north of Sweden and an irregularly shaped area of low pressure over France and the south-east of England. Fall taking place later on our extreme northern coasts.	
		**Sunday, August 14.** *Weather* fair or fine generally, but rainy in the west of Norway and showery in the north of Scotland. Showers falling later at a few of our western stations. *Temperature* fallen generally; readings over our Islands ranging at 8 a.m. from 62° at Scilly to 47° in the Shetlands. Maxima below 70° in all parts of the Kingdom, and below 60° at some of our northern stations. *Wind* moderate Westerly and North-Westerly in the north, but Northerly and North-Easterly in the south. *Sea* moderate to smooth. *Barometer* falling in Scandinavia, Denmark, and the north of Scotland, but rising elsewhere. Areas of high pressure lying over our west and south-west coasts and the north of Spain, with a large area of low readings over Scandinavia. High pressure system in west subsequently extending eastwards.	
		**Monday, August 15.** *Weather* fair generally, but dull in the extreme west and north, with rain at Hernösand and Christiansund. Showers falling later in the north of Scotland. *Temperature* risen a little over England and Ireland, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 63° at Jersey to 46° in the Shetlands. Subsequently rising to 71° at Cambridge and 75° at Jersey. *Wind* light or moderate from West or North-West on the borders of the North Sea, and also over Germany, but moderate from East over the Channel and Bay of Biscay, and variable over the more central parts of our Islands. *Sea* moderate to smooth. *Barometer* falling in Scotland, and also over Spain and the south-west of France, but rainy elsewhere. Band of high pressure extending from Central Europe across the Netherlands and England to the west of Ireland, with shallow depressions over the Gulf of Bothnia and the north of Spain. Brisk fall taking place later over France and the south of England.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head ℳ	54	41	51·1	43·4	47·0	− 6·9	35	0	6	0·28	−0·40	*	*
	Stornoway	56	39	54·6	44·4	49·2	− 5·5	50	0	6	0·20	−0·60	28	26
	Wick	58	40	55·4	44·0	49·4	− 5·6	52	0	6	0·54	+0·02	*	*
	Lairg ℳ S	58	38	55·7	43·9	49·5	− 5·2	53	0	6	0·26	−0·39	*	*
	Glencarron ℳ S	56	40	54·4	44·4	49·1	− 5·6	50	0	7	0·63	?	? ‡	? ‡
	Fort Augustus ℳ S	62	40	59·2	45·4	51·9	− 5·1	69	0	4	0·09	?	*	*
1. SCOTLAND, E.	Nairn	62	44	58·3	47·9	52·8	− 4·1	76	0	5	0·14	−0·48	*	*
	Aberdeen	65	44	58·7	46·9	52·5	− 4·2	74	0	6	0·12	−0·58	23	24
	Braemar ℳ S	62	42	57·5	44·6	50·7	− 3·3	61	0	4	0·06	−0·80	35‡	33‡
	Ochtertyre ℳ S	69	38	65·0	43·6	53·7	− 3·3	82	0	2	0·25	−0·55		
	Leith	71	44	65·9	48·4	56·6	− 1·4	102	0	1	0·10	−0·48	*	*
	Marchmont S	67	42	59·9	45·6	52·3	− 3·8	72	0	1	0·13	−0·66	41	39
2. ENGLAND, N.E.	Alnwick Castle	67	42	58·6	46·3	52·1	− 4·5	71	0	1	0·10	−0·57	*	*
	Durham	74	38	64·1	44·1	53·5	− 3·7	81	0	2	0·36	−0·28	39	37
	Shields	71	41	60·0	46·6	52·9	− 4·8	76	0	2	0·43	−0·20	*	*
	Scarborough ℳ	75	40	61·3	47·4	53·9	− 4·9	83	0	2	0·15	−0·45	36‡	35‡
	York	75	37	64·7	46·4	55·0	− 5·0	91	0	1	0·15	−0·40	42	40
	Spurn Head	70	46	61·6	51·6	56·3	− 3·4	100	0	2	0·14	?	*	*
3. ENGLAND, E.	Hillington ℳ	72	40	66·1	48·7	56·9	− 3·1	104	0	2	0·59	+0·01	47	46
	Yarmouth	72	45	63·3	51·1	56·8	− 3·9	104	0	3	0·58	+0·09	*	*
	Geldeston	75	40	66·5	49·0	57·2	− 3·8	106	0	3	0·11	−0·31	43	42
	Cambridge	78	41	70·1	50·0	59·5	− 2·7	123	0	2	0·51	−0·01	36	35
	Rothamsted	79	38	69·2	50·2	59·1	− 2·3	120	0	1	0·04	−0·54	*	*
	Ingatestone	79	39	69·0	50·3	59·1	− 3·3	120	0	0	—	−0·47	55‡	53‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	69	38	63·9	46·6	54·7	− 5·7	89	0	2	0·11	−0·44	28‡	27‡
	Loughborough	71	38	65·9	48·9	56·9	− 4·5	104	0	1	0·07	−0·51	*	*
	Leicester	72	40	67·4	48·9	57·6	− 3·8	109	0	2	0·10	−0·54	36	35
	Cheadle ℳ	68	38	62·3	46·4	53·9	− 5·8	83	0	3	0·08	−0·74	*	*
	Churchstoke ℳ	67	36	63·3	43·3	52·8	− 7·0	76	0	2	0·56	−0·04	37	36
	Hereford ℳ	75	38	69·2	46·9	57·4	− 4·0	108	0	2	0·09	−0·49	*	*
	Cirencester	75	38	67·7	48·0	57·3	− 3·5	107	0	1	0·09	−0·65	62	60
	Oxford	76	40	68·3	49·7	58·4	− 3·0	115	0	1	0·15	−0·38	58	56
5. ENGLAND, S.	London	81	39	71·1	50·0	59·9	− 2·9	125	0	1	0·02	−0·48	50‡	49‡
	Strathfield Turgiss ℳ	84	35	73·6	49·4	60·8	− 0·6	132	0	2	0·04	−0·48	*	*
	Dungeness	78	45	67·7	54·7	60·8	− 0·9	132	0	0	—	−0·43	*	*
	Hastings (St. Leonard's)	82	49	68·8	54·4	61·2	− 0·3	134	0	1	0·03	−0·45	55	54
	Southampton	86	45	73·9	53·1	62·9	+ 1·1	146	0	1	0·14	−0·44	66	65
	Hurst Castle	78	46	71·9	53·3	62·0	+ 0·6	140	0	0	—	−0·49	*	*
	Stowell ℳ	74	45	68·5	50·6	58·7	− 1·7	117	0	1	0·06	?	59‡	58‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	69	43	61·7	47·9	54·4	− 2·5	87	0	6	0·60†	−0·50	*	*
	Glasgow	64	39	61·1	44·7	52·4	− 4·9	73	0	1	0·20	−0·65	48	45
	Ardrossan	63	43	61·0	48·6	54·4	− 3·1	87	0	1	0·06	−0·84	*	*
	Glenlee	63	36	60·1	43·3	51·2	− 6·1	64	0	2	0·22	?	*	*
	Douglas (Isle of Man)	66	43	62·2	49·0	55·2	− 2·5	92	0	1	0·02	−0·78	34	33
7. ENGLAND, N.W.	Newton Reigny (Penrith)	66	33	60·3	42·9	51·1	− 6·9	64	0	2	0·54	−0·17	27	26
	Barrow-in-Furness	65	43	61·6	51·0	56·0	− 4·1	98	0	1	0·02	−0·77	*	*
	Stonyhurst	67	38	61·9	45·7	53·3	− 5·9	79	0	1	0·05	−0·99	34	33
	Blackpool ℳ	64	42	61·5	51·6	56·3	− 4·1	100	0	2	0·02	−0·66	32	31
	Manchester	69	37	61·3	47·2	53·8	− 6·4	83	0	2	0·04	−0·75	*	*
	Liverpool Obsy (Bidston)	64	46	61·7	52·1	56·6	− 3·9	102	0	5	0·39	−0·24	*	*
	Llandudno ℳ	66*	45	60·7	51·3	55·7	− 4·8	96	0	3	0·56	−0·04	35	34
	Holyhead	69	50	61·7	53·0	57·1	− 2·6	106	0	3	0·61	−0·03	*	*
8. ENGLAND, S.W.	Llandovery	74	33	69·1	41·0	54·2	− 5·9	85	0	2	0·09	−0·93	*	*
	Pembroke	66	48	61·6	51·7	56·4	− 2·8	101	0	1	0·16	−0·59	63	61
	Arlington (N. Devon)	70	45	65·9	48·3	56·6	− 3·2	102	0	0	—	−1·25	*	*
	Cullompton ℳ	79	39	70·4	48·7	58·9	− 2·5	118	0	0	—	−0·62	64	63
	Falmouth	69	49	65·4	52·9	58·7	− 2·3	117	0	0	—	−0·80	78	76
	Plymouth	78	48	72·9	53·9	62·8	+ 1·1	146	0	0	—	−0·64	75	74
	Prawle Point	82	47	70·4	51·6	60·4	+ 0·8	129	0	0	—	?	*	*
9. IRELAND, N.	Malin Head	61	49	57·4	52·0	54·5	− 2·4	88	0	4	0·38	?	*	*
	Londonderry	?	44	?	48·5	?	?	?	?	6	0·89	+0·09	*	*
	Mullaghmore	62	44	60·7	51·9	56·0	− 3·2	98	0	4	0·23	−0·55	*	*
	Belmullet	65	42	60·3	50·7	55·2	− 2·5	92	0	5	0·93	?	*	*
	Markree Castle	65	33	61·3	46·4	53·5	− 5·5	81	0	5	0·26	−0·54	33	32
	Brookeborough	63	35	60·5	45·3	52·4	− 6·9	73	0	1	0·37	?	*	*
	Armagh	65	39	61·1	46·0	53·1	− 6·1	78	0	2	0·22	−0·40	27	26
	Donaghadee	68	48	60·7	51·7	55·9	− 2·0	97	0	4	0·04	−0·63	*	*
	Edgeworthstown	66	37	62·4	45·1	53·2	− 6·2	78	0	2	0·30	−0·48	*	*
10. IRELAND, S.	Dublin	68	42	63·2	50·1	56·3	− 3·3	100	0	2	0·24	−0·40	39	38
	Parsonstown	77	35	65·1	46·0	55·0	− 4·2	91	0	1	0·13	−0·65	36	35
	Kilkenny	78	39	69·3	47·6	57·8	− 1·7	111	0	1	0·06	−0·64	*	*
	Waterford	76	40	68·6	47·2	57·3	− 2·8	107	0	1	0·01	−0·79	*	*
	Roche's Point	73	48	66·9	51·6	58·8	− 1·5	118	0	0	—	−0·78	*	*
	Valencia	66	44	64·3	51·6	57·6	− 1·5	109	0	4	0·18	−0·84	49	48
	Killarney	70	36	65·9	47·2	56·0	− 3·6	98	0	3	0·19	?	*	*
	Foynes	67	40	64·4	48·2	55·8	− 2·9	97	0	3	0·07	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	68	50	63·6	56·1	59·6	− 1·3	123	0	1	0·01	−0·53	*	*
	Jersey (Noirmont)	75	49	69·7	55·3	62·1	+ 0·2	141	0	1	0·54	+0·03	80	79

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 33.] *Second Series.* WEEK ENDING MONDAY, 22ND AUGUST, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 132.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	63	38	57·3	44·9	50·7	4 below.	61	−27	0	0	1391	+164	547	+ 37
	1. SCOTLAND, EAST	72	36	61·1	45·1	52·6	3 below.	74	−33	0	0	1803	+187	584	+ 41
	2. ENGLAND, N.E.	73	39	61·8	48·1	54·5	3 below.	88	−28	0	0	1904	+183	564	+ 82
	3. ENGLAND, EAST	76	39	65·4	47·8	56·1	5 below.	99	−29	0	0	1997	− 8	675	+158
	4. MIDLAND COUNTIES	76	37	66·2	46·4	55·7	5 below.	96	−23	0	0	2041	+ 33	670	+166
	5. ENGLAND, SOUTH	75	40	66·9	49·5	57·7	4 below.	110	−26	0	0	2136	− 17	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	67	34	61·7	45·2	53·0	4 below.	77	−29	0	0	1770	+ 73	445	+ 47
	7. ENGLAND, N.W.	71	37	62·6	48·4	55·1	5 below.	92	−22	0	0	1860	+ 60	501	+118
	8. ENGLAND, S.W.	74	35	66·6	49·4	57·5	3 below.	109	−13	0	0	2121	+ 78	405	+172
	9. IRELAND NORTH	70	36	62·5	48·3	55·0	3 below.	91	−16	0	0	2002	+227	373	+ 23
	10. IRELAND, SOUTH	72	38	65·2	48·6	56·4	3 below.	101	−12	0	0	2266	+253	336	+ 97
	— CHANNEL ISLANDS	70	50	66·8	55·6	60·8	1 below.	132	0	0	0	2237	+ 58	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 132.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	6	1 less.	140	0	24·0	+ 3·4	18	17	768	−127	24	− 5
	1. SCOTLAND, EAST	5	7	1 less.	103	−16	12·5	− 6·6	21	21	1065	+ 29	34	+ 1
	2. ENGLAND, N.E.	4	6	0 (average).	90	−24	8·4	− 8·0	25	25	1067	+108	34	+ 3
	3. ENGLAND, EAST	4	5	0 (average).	83	−33	9·5	− 5·6	35	36	1333 *	+171	43	+ 5
	4. MIDLAND COUNTIES	3	6	1 less.	79	−36	10·0	− 7·3	35	35	1179	+150	38	+ 4
	5. ENGLAND, SOUTH	4	9	3 more.	77	−32	9·9	− 6·1	38	38	1292	+187	42	+ 6
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	3	4	5 less.	107	−22	20·5	− 6·6	32	32	1154	+156	37	+ 5
	7. ENGLAND, N.W.	4	4	3 less.	84	−36	12·3	− 7·7	34	34	1205	+202	39	+ 7
	8. ENGLAND, S.W.	3	4	5 less.	82	−43	11·3	−13·5	54	54	1497	+321	49	+10
	9. IRELAND, NORTH	4	5	3 less.	106	−38	16·7	− 4·5	33	33	1090	+159	35	+ 5
	10. IRELAND, SOUTH	4	6	2 less.	88	−47	14·1	− 9·6	36	36	1305	+254	42	+ 8
	— CHANNEL ISLANDS	4	6	1 less.	91	−43	10·1	− 8·4	65	66	1631	+223	54	+ 7

General Remarks.

Weather was in a dull, cold, and unsettled condition during the earlier part of the period, with very violent thunderstorms in many parts of England and storms of less severity over Ireland and Scotland also. Towards the end of the week, however, the weather became fine and dry again in all parts of the Kingdom.

Temperature has been below the mean very generally, the deficit ranging from 1° in the "Channel Islands" to between 3° and 5° in all the other districts. The highest of the maxima, which were recorded at most stations on the 22nd, ranged from 63° in "Scotland, N." and 67° in "Scotland, W.", to 76° in "England, E." and the "Midland Counties". The absolute minima, which were registered on somewhat irregular dates, were again low for the season, ranging from 34° to 39° in Scotland, from 36° to 38° in Ireland, and from 35° to 46° over England. In the "Channel Islands" the lowest reading was 50°.

Rainfall has been more than the mean in the south of England and equal to it in "England, N.E.", and "England, E.", but in all other parts of the Kingdom it has been less than the mean.

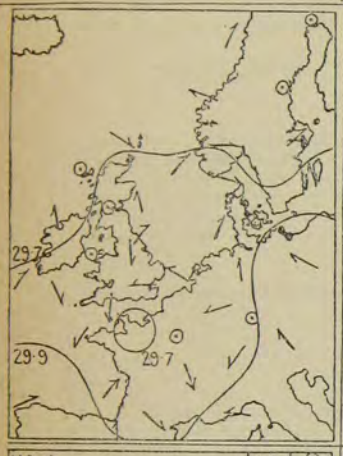
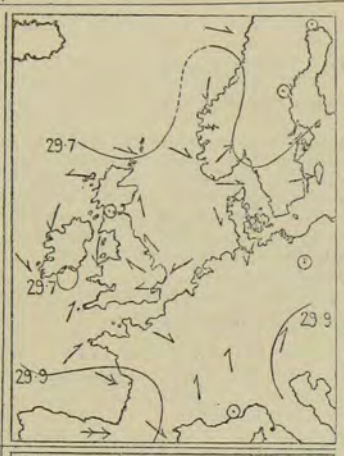
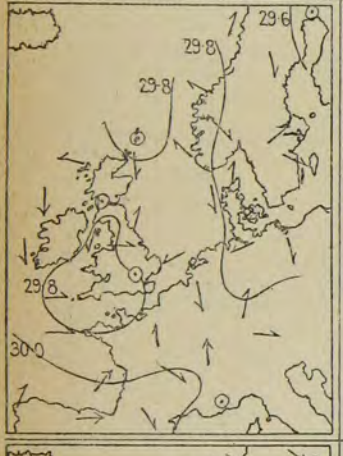
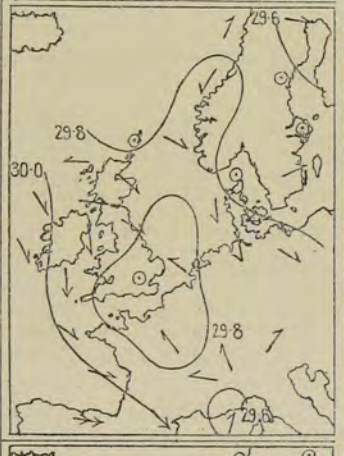
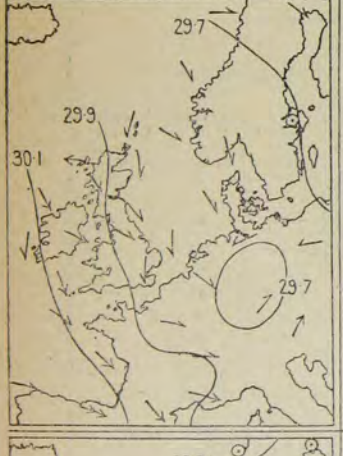
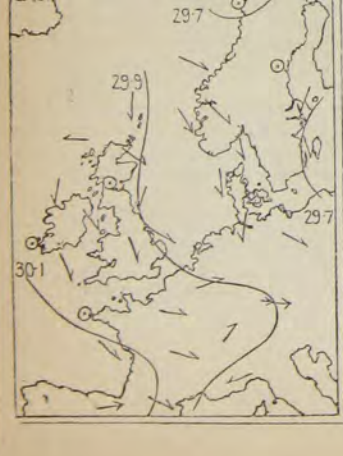
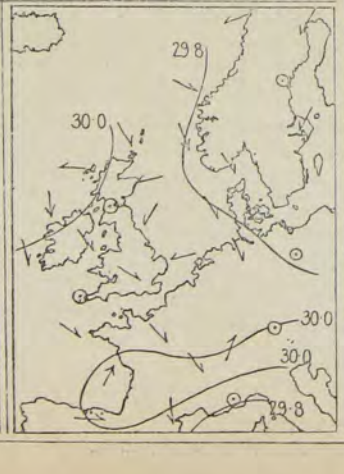
Bright sunshine shows a decrease in nearly all districts, the percentage of the possible amount of duration ranging from 17 to 32 in Ireland, from 25 to 65 over England and the "Channel Islands", and from 33 to 36 in Ireland.

Depressions observed.—During the first part of this week several small shallow disturbances appeared over our Islands from the westward, occasioning somewhat variable North-Westerly and Northerly winds, and the severe thunderstorms noted above. As these disappeared to the eastward a small depression reached the north of France and our extreme south-east coasts from the Bay of Biscay; this, however, soon dispersed, and by the 21st anticyclonic conditions had again appeared over the United Kingdom, with light variable airs and fair weather.

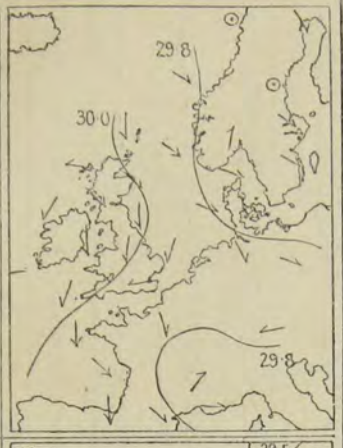
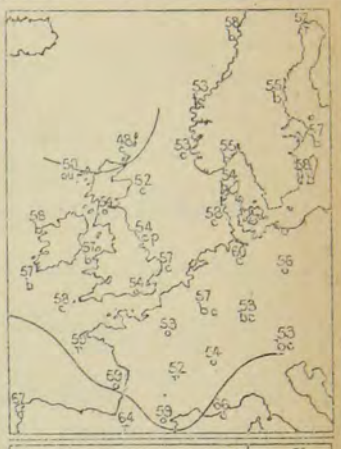
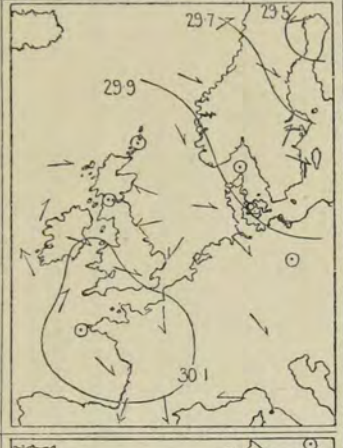
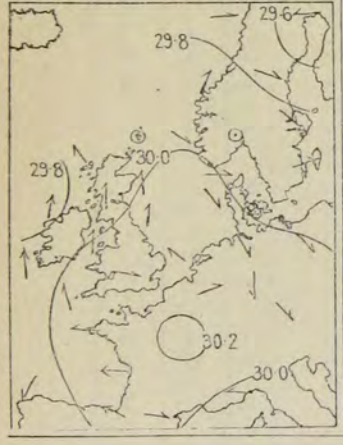
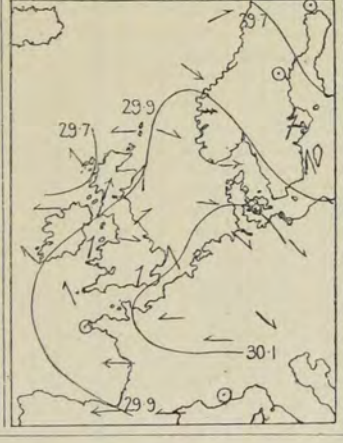
* This value has been altered slightly owing to the receipt of some arrears of observaations.

A 52026. 350.—8/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, August 16.** *Weather* dull in Netherlands, the south of England, and the north of France, with rain in many places, but fair or fine in most other districts. Rain falling later at several of our western and northern stations, and thunderstorms occurring in many parts of England. *Temperature* fallen a little in the south of England, but risen elsewhere; readings over our Islands ranging at 8 a.m. from 62° at Scilly to 48° in the Shetlands. *Wind* calm or light and variable over the northern parts of the United Kingdom, but moderate from East or North-East in the south, and fresh from South-West in the south-west of France. Subsequently shifting to the Westward at many of the Channel stations. *Sea* slight or smooth. *Barometer* falling at all but the Scandinavian, and southern French stations. Pressure high over Spain, with a large depression over the north of Sweden, and a small shallow disturbance over the north of France. Latter system subsequently moving eastwards and dispersing, but new depression forming over our south-west coasts.	
		**Wednesday, August 17.** *Weather* fine in Scandinavia, the south-west of our Islands, and the south of France, but cloudy and showery elsewhere. Severe thunderstorms occurring over England later, with very heavy rain in some parts of the London district. *Temperature* fallen a little generally; readings over our Islands ranging at 8 a.m. from 64° at Hurst Castle to 50° in the Shetlands. *Wind* moderate Northerly on our western coasts, but South-Westerly or Westerly in the south, and variable or Southerly in the east. Light Northerly breezes reported over Scandinavia and Denmark. *Sea* moderate to smooth. *Barometer* falling in the south of England as well as in Denmark and Germany, but rising elsewhere. Pressure still highest in Spain and lowest in the north of Sweden, but irregularly formed depression lying over England. Depression subsequently moving steadily eastwards.	
		**Thursday, August 18.** *Weather* fair or fine generally, but rainy in the Netherlands and showery in the north of our Islands. Showers falling later in many parts of the United Kingdom, with local thunderstorms over England, and lightning at night. *Temperature* fallen a little generally; readings over our Islands ranging at 8 a.m. from 61° at Prawle Point to 51° at Sumburgh Head and Nairn. *Wind* chiefly Northerly and North-Westerly, and moderate or fresh in force, but light from North-East in the Netherlands, and from South-West over South Germany. *Sea* rather rough at Stornoway and Scilly, but moderate to smooth elsewhere. *Barometer* rising at all but the Danish and German stations. Anticyclone lying off the north-west of Spain, and depression of previous day now passing away over the Netherlands. Slight fall taking place on our south-west coasts later.	
		**Friday, August 19.** *Weather* fair generally, but rainy at some of the German stations, as well as at York. Showers falling generally later, with lightning over England at night. *Temperature* changed little and irregularly; readings over our Islands ranging at 8 a.m. from 62° at Jersey to 50° at Parsonstown. Maxima below 65° at all but our extreme southern stations. *Wind* light or moderate from the Northward or North-Westward. Subsequently backing to the South-Westward in the west of France. *Sea* slight or smooth generally. *Barometer* falling a little over Spain and the west coasts of our Islands and France, but rising elsewhere. Anticyclone lying over the Bay of Biscay and the north of Spain, with shallow depressions over the Baltic, the Gulf of Genoa, and the north of Norway. New disturbance appearing later over the Bay of Biscay.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, August 20.** *Weather* rainy at many of our southern stations and dull in the north of Scotland, but fair and fine elsewhere. Some improvement taking place in south later. *Temperature* fallen in most places; readings over our Islands ranging at 8 a.m. from 60° at Dungeness to 48° at Sumburgh Head and 46° at Parsonstown. *Wind* light or moderate from North or North-East over our Islands and from North-West over the Bay of Biscay and the eastern shores of the North Sea, but Southerly in the east of France. *Sea* slight or smooth at nearly all stations. *Barometer* falling in France and the south of England, but rising elsewhere. Pressure high over and to the westward of our Islands, with depressions over the Baltic and the Gulf of Genoa, and a small shallow disturbance over the north of France. Last-mentioned system subsequently moving slowly eastwards and dispersing.	
		**Sunday, August 21.** *Weather* fine generally, but dull in the north of Scotland and rainy at Haparanda. Rain falling at some of the Irish stations in evening. *Temperature* changed little and irregularly; readings over our Islands ranging from 66° at Jersey to 47° in the Shetlands. *Wind* light from North-East over the Channel and Bay of Biscay and from East or South-East on our extreme south-west coasts, but Northerly or North-Westerly elsewhere. Subsequently shifting to West in the south of England. *Sea* slight or smooth generally. *Barometer* rising at all but our extreme western stations. Pressure highest in an anticyclone lying over the western coasts of our Islands and France and lowest in the north of Sweden. Anticyclone subsequently moving eastwards, and barometer falling steadily in west and north-west.	
		**Monday, August 22.** *Weather* dull and rainy at many of our western stations, but fair or fine elsewhere. Rain subsequently falling in all parts of Ireland and Scotland. *Temperature* risen in the west and north of our Islands, but fallen in most other localities; readings over the United Kingdom ranging at 8 a.m. from 65° at Scilly and Jersey to 49° in the Shetlands. Subsequently rising to 75° in London and 76° at Cambridge. *Wind* Easterly over the Bay of Biscay, but Southerly on our western and northern coasts, and North-Westerly on the eastern shores of the North Sea; light or moderate in force generally, but strong in the west of Ireland. *Sea* rough off the west of Ireland, but slight or smooth elsewhere. *Barometer* falling briskly in the west and north of our Islands, but rising in nearly all other localities. Anticyclone lying over France, the Netherlands, and the south-east of England, with a depression off the west of Ireland, and another over the Gulf of Bothnia. Depression in west subsequently moving northwards, and barometer rising slightly at some of our western stations.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟫⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 129 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	59	43	54·4	44·9	49·4	− 4·5	52	0	5	0·24	−0·50	*	*
	Stornoway	60	41	57·0	45·6	51·0	− 3·7	63	0	5	0·92	+0·09	18	17
	Wick	60	41	57·3	44·6	50·6	− 4·2	60	0	7	0·42	−0·10	*	*
	Lairg Ⓢ	62	38	57·4	43·5	50·0	− 4·5	56	0	6	0·47	−0·18	*	*
	Glencarron Ⓢ	62	42	57·8	45·8	51·4	− 3·0	66	0	5	1·07	?	? ‡	? ‡
	Fort Augustus Ⓢ	63	39	59·6	44·7	51·7	− 4·3	68	0	4	0·34	?	*	*
1. SCOTLAND, E.	Nairn	63	43	59·9	46·6	52·9	− 3·5	76	0	5	0·38	−0·25	*	*
	Aberdeen	65	45	58·9	46·9	52·5	− 3·4	74	0	4	0·44	−0·28	24	23
	Braemar Ⓢ	62	36	59·4	41·8	50·1	− 3·1	57	0	6	0·87	−0·03	17‡	17‡
	Ochtertyre Ⓢ	72	38	64·3	43·9	53·6	− 2·4	81	0	5	0·84	+0·04		
	Leith	68	42	63·0	47·1	54·6	− 2·9	88	0	3	0·39	−0·19	*	*
	Marchmont Ⓢ	66	40	60·9	44·3	52·1	− 3·4	71	0	5	0·95	+0·17	22	22
2. ENGLAND, N.E.	Alnwick Castle	64	41	59·0	47·6	53·0	− 3·3	77	0	4	1·12	+0·44	*	*
	Durham	70	39	62·4	45·6	53·5	− 3·1	81	0	4	0·40	−0·25	21	21
	Shields	67	43	59·9	48·4	53·8	− 4·4	83	0	4	1·22	+0·60	*	*
	Scarborough ℳ	71	45	61·3	49·3	55·0	− 3·3	91	0	4	0·23	−0·37	23‡	23‡
	York	73	40	65·9	45·7	55·2	− 3·8	92	0	3	0·68	+0·13	32	32
	Spurn Head	64	50	62·0	52·9	56·7	− 2·5	103	0	2	0·17	?	*	*
3. ENGLAND, E.	Hillington ℳ	75	41	64·7	46·6	55·1	− 4·7	92	0	3	0·39	−0·19	43	43
	Yarmouth	65	47	62·4	51·1	56·4	− 4·2	101	0	3	0·43	−0·06	*	*
	Geldeston	72	39	66·0	46·3	55·6	− 5·2	95	0	4	0·34	−0·08	42	42
	Cambridge	76	43	68·0	48·1	57·5	− 3·9	109	0	5	1·15	+0·63	33	33
	Rothamsted	75	40	66·3	46·8	56·0	− 4·9	98	0	3	0·35	−0·23	*	*
	Ingatestone	72	43	65·2	47·9	56·1	− 5·5	99	0	3	0·50	−0·02	25‡	25‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	73	37	64·9	44·6	54·1	− 5·8	85	0	3	0·35	−0·20	30‡	30‡
	Loughborough	75	39	67·7	46·7	56·6	− 4·0	102	0	5	0·33	−0·27	*	*
	Leicester	75	42	68·1	46·6	56·7	− 4·7	103	0	3	0·65	0·09	31	31
	Cheadle ℳ	69	42	64·1	46·4	54·7	− 5·0	89	0	3	0·93	+0·09	*	*
	Churchstoke ℳ	72	39	64·4	43·6	53·4	− 6·4	80	0	0	—	−0·62	37	37
	Hereford ℳ	76	41	68·6	46·6	56·9	− 4·5	104	0	4	0·90	+0·31	*	*
	Cirencester	73	39	66·0	47·1	56·0	− 4·9	98	0	3	0·54	−0·21	38	38
	Oxford	72	46	65·7	49·4	57·1	− 4·3	106	0	2	0·81	+0·28	39	39
5. ENGLAND, S.	London	75	45	67·7	47·4	56·9	− 5·4	104	0	5	1·79	+1·29	32‡	32‡
	Strathfield Turgiss ℳ	75	40	68·2	47·4	57·2	− 4·0	105	0	5	0·68	+0·18	*	*
	Dungeness	68	45	65·6	49·7	57·2	− 4·2	106	0	3	0·76	+0·27	*	*
	Hastings (St. Leonard's)	67	48	65·6	52·0	58·1	− 3·3	113	0	4	0·49	−0·06	43	43
	Southampton	74	46	68·5	50·4	58·9	− 2·7	118	0	4	1·16	+0·56	35	35
	Hurst Castle	69	46	67·1	51·3	58·7	− 2·5	117	0	4	0·60	+0·07	*	*
	Stowell ℳ	71	41	66·0	48·4	56·7	− 3·6	103	0	4	0·50	?	42‡	42‡
6. SCOTLAND, W.	Laudale (Loch Sunart) †	67	40	61·0	47·6	53·9	− 2·9	83	0	4	0·38†	−0·72	*	*
	Glasgow	65	42	61·6	43·3	51·9	− 4·7	69	0	3	0·51	−0·36	25	23
	Ardrossan	65	42	62·1	46·1	53·6	− 3·6	81	0	1	0·11	−0·81	*	*
	Glenlee	65	34	61·7	41·6	51·1	− 5·1	65	1	4	0·75	?	*	*
	Douglas (Isle of Man)	66	41	62·3	47·3	54·4	− 3·2	87	0	4	0·47	−0·36	41	41
7. ENGLAND, N.W.	Newton Reigny (Penrith)	68	37	61·2	40·8	50·4	− 7·0	64	3	5	0·21	−0·51	22	22
	Barrow-in-Furness	67	47	62·1	49·6	55·5	− 4·4	95	0	4	0·35	−0·47	*	*
	Stonyhurst	66	40	61·9	46·4	53·7	− 5·6	82	0	4	0·39	−0·65	32	32
	Blackpool ℳ	67	45	63·0	49·3	55·7	− 4·3	96	0	4	0·42	−0·27	40	40
	Manchester	71	42	63·7	46·8	54·7	− 5·0	89	0	4	0·53	−0·25	*	*
	Liverpool Obsy (Bidston)	70	48	63·9	50·7	56·9	− 3·3	104	0	4	0·52	−0·13	*	*
	Llandudno ℳ	69	48	62·9	50·8	56·5	− 3·7	102	0	3	0·68	+0·08	42	42
	Holyhead	67	49	61·7	53·0	57·1	− 2·5	106	0	3	0·20	−0·47	*	*
8. ENGLAND, S.W.	Llandovery	73	35	68·9	43·6	55·5	− 4·0	95	0	2	0·33	−0·76	*	*
	Pembroke	64	50	62·1	51·7	56·6	− 2·1	102	0	3	0·34	−0·34	53	53
	Arlington (N. Devon)	74	42	66·4	47·4	56·3	− 2·9	100	0	4	0·26	−1·00	*	*
	Cullompton ℳ	72	38	68·0	47·3	57·0	− 3·9	105	0	3	0·51	−0·14	42	42
	Falmouth	69	50	65·6	52·2	58·5	− 2·2	116	0	3	0·50	−0·35	72	72
	Plymouth	73	48	69·4	51·9	60·1	− 1·6	127	0	3	0·40	−0·25	49	49
	Prawle Point	68	48	65·9	51·6	58·3	− 0·9	114	0	3	0·27	?	*	*
9. IRELAND, N.	Malin Head	65	50	59·9	52·3	55·9	− 0·9	97	0	6	0·23	?	*	*
	Londonderry	?	42	?	46·9	?	?	?	?	5	0·59	−0·23	*	*
	Mullaghmore	67	45	62·4	49·6	55·6	− 3·1	95	0	6	0·52	−0·26	*	*
	Belmullet	64	49	61·1	52·6	56·6	− 1·1	102	0	5	1·26	?	*	*
	Markree Castle	68	36	62·5	44·8	53·1	− 5·4	78	0	5	0·54	−0·28	40	40
	Brookeborough	69	36	63·5	45·1	53·8	− 4·7	83	0	1	0·40	?	*	*
	Armagh	68	40	63·9	45·6	54·2	− 4·3	85	0	4	0·51	−0·11	26	26
	Donaghadee	63	48	61·4	50·9	55·8	− 1·8	97	0	1	0·08	−0·61	*	*
	Edgeworthstown	70	40	65·0	45·4	54·6	− 3·9	88	0	4	0·23	−0·55	*	*
10. IRELAND, S.	Dublin	68	47	64·2	49·9	56·6	− 2·6	102	0	4	0·50	−0·15	38	38
	Parsonstown	70	41	65·0	45·9	54·8	− 4·1	90	0	5	0·37	−0·43	34	34
	Kilkenny	72	40	65·6	41·9	54·6	− 4·1	88	0	3	0·51	−0·24	*	*
	Waterford	71	38	67·9	45·1	55·8	− 3·8	97	0	3	1·03	+0·18	*	*
	Roche's Point	68	49	65·0	51·1	57·6	− 2·3	109	0	4	0·57	−0·26	*	*
	Valencia	67	47	64·3	52·1	57·8	− 2·1	111	0	5	0·53	−0·52	36	36
	Killarney	69	38	64·6	47·8	55·7	− 3·8	96	0	5	0·55	?	*	*
	Foynes	71	47	64·9	51·9	58·0	− 0·7	112	0	4	1·07	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	70	53	65·7	55·9	60·3	− 0·5	128	0	3	0·90	+0·25	*	*
	Jersey (Noirmont)	70	50	67·9	55·3	61·2	− 0·6	134	0	4	0·24	−0·36	65	66

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 34.] *Second Series.* WEEK ENDING MONDAY, 29TH AUGUST, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 136.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	73	45	64·4	51·7	58·2	4 above.	113	+27	0	0	1504	+194	547	+ 37
	1. SCOTLAND, EAST	81	42	70·7	51·2	60·4	5 above.	129	+25	0	0	1932	+213	584	+ 41
	2. ENGLAND, N.E.	77	44	70·3	53·3	61·3	4 above.	135	+21	0	0	2039	+211	564	+ 82
	3. ENGLAND, EAST	85	43	74·3	53·0	63·0	3 above.	147	+21	0	0	2144	+ 18	675	+168
	4. MIDLAND COUNTIES	83	43	75·2	51·9	62·9	3 above.	146	+23	0	0	2187	+ 64	670	+166
	5. ENGLAND, SOUTH	84	44	72·9	54·9	63·3	3 above.	149	+15	0	0	2285	0	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	71	49	66·4	53·2	59·4	3 above.	122	+15	0	0	1892	+ 92	445	+ 47
	7. ENGLAND, N.W.	77	42	71·1	54·7	62·4	3 above.	143	+28	0	0	2003	+ 91	501	+118
	8. ENGLAND, S.W.	83	43	70·2	55·0	62·1	3 above.	141	+18	0	0	2262	+ 95	405	+172
	9. IRELAND NORTH	74	48	68·0	55·5	61·4	4 above.	136	+28	0	0	2138	+257	373	+ 23
	10. IRELAND, SOUTH	74	51	68·4	57·0	62·4	4 above.	143	+28	0	0	2409	+282	336	+ 97
	— CHANNEL ISLANDS	76	52	69·8	57·4	63·2	2 above.	148	+15	0	0	2385	+ 71	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 136.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	4	5	2 less.	144	+ 1	24·5	+ 3·2	30	30	798	−125	25	− 4
	1. SCOTLAND, EAST	3	5	2 less.	106	−16	13·0	− 6·9	39	39	1109 *	+ 36	34	+ 1
	2. ENGLAND, N.E.	3	4	2 less.	93	−25	8·8	− 8·3	43	44	1109 *	+121	35	+ 4
	3. ENGLAND, EAST	4	4	2 less.	87	−33	9·9	− 5·8	42	43	1375	+176	43	+ 5
	4. MIDLAND COUNTIES	3	4	3 less.	82	−36	10·4	− 7·6	50	51	1229	+161	39	+ 5
	5. ENGLAND, SOUTH	3	5	1 less.	80	−33	10·4	− 6·2	45	47	1337	+191	42	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	4	9	3 less.	111	−22	21·4	− 6·8	32	33	1186	+153	37	+ 4
	7. ENGLAND, N.W.	3	6	2 less.	87	−36	12·9	− 7·6	42	43	1247	+208	39	+ 6
	8. ENGLAND, S.W.	3	5	3 less.	85	−44	11·8	−13·9	46	48	1543	+314	49	+10
	9. IRELAND, NORTH	6	10	2 more.	112	−36	17·7	− 4·3	29	30	1119	+158	35	+ 5
	10. IRELAND, SOUTH	6	18	10 more.	94	−44	15·9	− 8·6	38	39	1343	+252	42	+ 7
	— CHANNEL ISLANDS	5	10	5 more.	96	−42	11·1	− 8·0	41	43	1672	+206	53	+ 6

General Remarks.

Weather has been unsettled and rainy in Ireland, but over Great Britain the conditions have been generally fine, although in many places some rather severe thunderstorms were experienced.

Temperature has been above the mean in all districts, the excess ranging from 2° in the "Channel Islands" to 3° or 4° over England and Ireland, and to between 3° and 5° in Scotland. The highest of the maxima, which were recorded at most stations on the 25th, varied from 71° in "Scotland, W." to between 81° and 85° over the southern, central, and eastern parts of Great Britain. The lowest of the minima were generally registered on the 23rd, when the thermometer fell to between 42° and 49° in most parts of the Kingdom, to 51° in "Ireland, S." and to 52° in the "Channel Islands".

Rainfall has been more than the mean in Ireland and the "Channel Islands", but less in England and Scotland.

Bright sunshine shows an increase on that reported last week in most places, the percentage of the possible amount of duration ranging from 30 in "Scotland, N." and "Ireland, N." to between 39 and 51 in nearly all other districts.

Depressions observed.—The anticyclonic conditions existing over our Islands at the close of last week showed decided indications of breaking up as this period commenced, and a series of depressions subsequently skirted our extreme western and northern coasts, while some shallow subsidiary disturbances appeared more directly over us. Southerly to South-Westerly winds consequently prevailed in all parts of the United Kingdom, and in the west they occasionally blew freshly or strongly.

* These values have been altered slightly owing to the receipt of further information.

A 52065. 350.—9/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

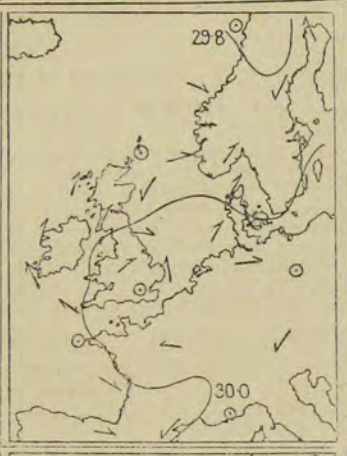
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, August 23.

Weather fine generally, but dull in the northern parts of Scotland and Scandinavia, with rain at Hernösand and Christiansund. Rain falling later at several of our extreme western and northern stations.

Temperature risen generally; readings over our Islands ranging at 8 a.m. from 67° at Shields to 51° in the Shetlands. Subsequently rising to 76° in London and 78° at Loughborough and Cambridge.

Wind moderate Easterly over France and the south of England, but South-Easterly or Southerly on our western coasts, and South-Westerly or Westerly in the east.

Sea rather rough off the west of Ireland, but moderate to smooth elsewhere.

Barometer rising at all but the western French stations. Anticyclone lying over Germany with a large area of low pressure over the north of Scandinavian, and a small depression near the Shetlands. Depression subsequently moving eastwards, but slight fall taking place over our Islands and France.

Wednesday, August 24.

Weather fine at all but our extreme western and northern stations, where dull and unsettled. Rain falling later on our west and south-west coasts.

Temperature fallen a few degrees over the northern parts of our Islands, but risen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 70° at Jersey to 50° at Sumburgh Head. Subsequently rising to 77° at York, Liverpool, Hurst Castle, and Oxford, 79° in London, 80° at Cambridge, and 81° at Loughborough.

Wind South-Easterly in our Islands; light in the east, but fresh in the west, Westerly on the eastern shores of the North Sea, variable in Germany and France.

Sea rough at Valencia, but slight or smooth elsewhere.

Barometer falling in most places. Anticyclone still lying over Germany, with a depression over the north of Scandinavia, and another off the west of Ireland. Fall continuing all day.

Thursday, August 25.

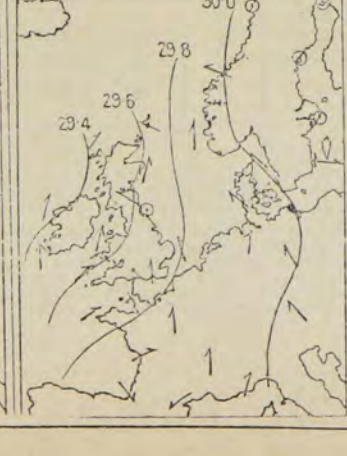
Weather cloudy and showery at several of our western stations, and misty or foggy in the south of England, but fair or fine elsewhere.

Temperature fallen a little in the south of England, but risen elsewhere; readings over our Islands ranging at 8 a.m. from 66° at Jersey to 58° in the Shetlands. Subsequently rising to 82° at Loughborough, 83° in London, and 85° at Cambridge.

Wind light Easterly over the Channel and north of France, but South-Easterly or Southerly elsewhere; fresh in force on our extreme western coasts. Subsequently veering to South-West in the south of England.

Sea rather rough at Valencia, but slight or smooth elsewhere.

Barometer falling over the whole of our Islands and the adjacent coasts, but rising elsewhere. Large high pressure system lying over Central and Northern Europe, with a depression to the westward of the United Kingdom, and some shallow local disturbances over France.



Friday, August 26.

Weather dull on the west coasts of our Islands and France, with rain at several of our south-western stations, but fair or fine elsewhere. Rain falling later in the west and north generally, and lightning seen in the south of Ireland at night.

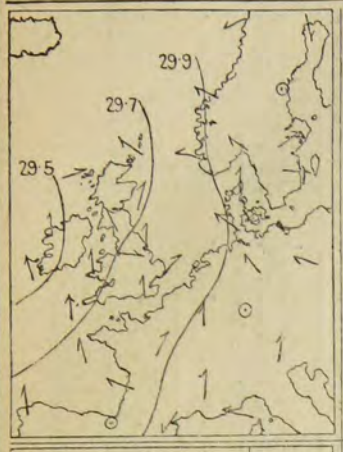
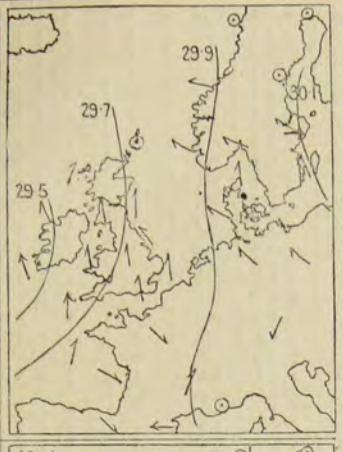
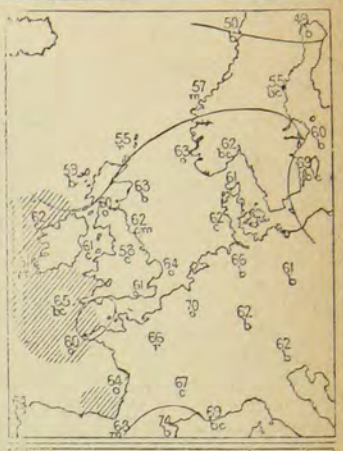
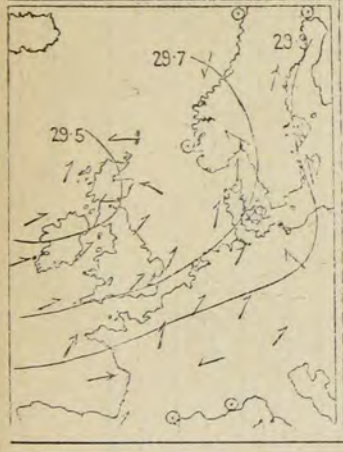
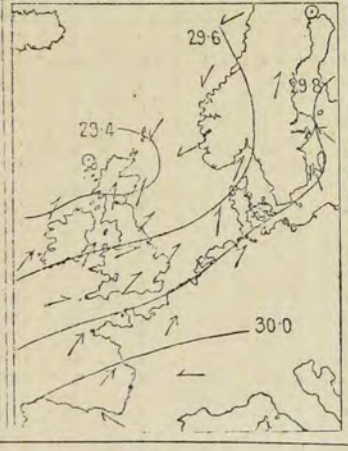
Temperature changed little and irregularly; readings over our Islands ranging at 8 a.m. from 68° in London to 52° in the Shetlands. Subsequently rising to 76° at Leith and Loughborough, to 80° at Cambridge, and to 81° at Nairn.

Wind chiefly South-Easterly; strong in force on our extreme west and south-west coasts, but light or moderate elsewhere. Subsequently veering to the south-westward on our south-west coasts.

Sea rather rough in the south-west.

Barometer falling in most places. Large area of high pressure over Sweden, the Baltic, and Germany, with a large and rather deep depression off the west of Ireland. Depression subsequently moving northwards, and barometer rising again in south-west.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, August 27.** *Weather* dull and unsettled over the south of our Islands and the north of France, with thunder at Valencia, but fair or fine elsewhere. Showers falling later in many parts of England and Ireland. *Temperature* risen at all but the English stations; readings over our Islands ranging at 8 a.m. from 65° at Leith, Scilly, and Hurst Castle to 55° in the Shetlands. Subsequently rising to 74° at Leith and 75° at Nairn and Loughborough. *Wind* light South-Westerly in the south-east of England, but Southerly or South-Easterly elsewhere; fresh or strong in force on our western coasts. *Sea* rather rough at our more exposed western stations. *Barometer* rising generally. Pressure still highest over Sweden, the Baltic, and Germany, with a depression to the westward of Ireland, and some small shallow disturbances off the east and south of England. Small symptoms disappearing later in day.	
		Sunday, August 28. *Weather* fine in Scotland and also in Sweden and Germany, but cloudy and showery elsewhere. Thunder and lightning occurring later in many parts of the United Kingdom. *Temperature* changed little and irregularly; readings over our Islands ranging at 8 a.m. from 67° in London to 52° in the Shetlands. Subsequently rising to 77° at Leith, York, and in London, 78° at Nairn, and 79° at Loughborough. *Wind* chiefly South-Easterly or Southerly; fresh in force at some of our western stations, but light or moderate elsewhere. Subsequently veering to South-West on our southern coasts. *Sea* rather rough in the extreme south-west. *Barometer* falling a little generally. Pressure highest over the Baltic, with a depression to the westward of our Islands and some shallow disturbances off the south-east of England. New high pressure system subsequently appearing over Spain.	
		**Monday, August 29.** *Weather* fair in France, but cloudy elsewhere, with fog in the north and east of Scotland, and showers in most other parts of the United Kingdom. Thunderstorms occurring later in many places. *Temperature* fallen a little in most places; readings over our Islands ranging at 8 a.m. from 64° at Jersey and Yarmouth to 53° in the Shetlands. *Wind* fresh from South-West over the south of our Islands and the north of France, but light from South on our northern coast, and also on the eastern shores of the North Sea. *Sea* rather rough in the Channel, but slight or smooth elsewhere. *Barometer* falling in Scandinavia, Denmark, and the north of our Islands, but rising elsewhere. Pressure highest over Spain, but relatively high over the Baltic, with a large depression over our north-west coasts. Depression subsequently moving slowly northwards.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	63	45	57·7	48·1	52·6	− 1·1	74	0	4	0·64	−0·12	*	*
	Stornoway	70	49	64·3	52·0	57·8	+ 3·7	111	0	5	0·46	−0·37	30	30
	Wick	68	51	62·9	52·4	57·3	+ 2·8	107	0	3	0·27	−0·28	*	*
	Lairg ℳ	72	50	69·9	51·4	60·1	+ 6·3	127	0	4	0·55	−0·12	*	*
	Glencarron ℳ	73	50	69·1	52·5	60·3	+ 6·7	128	0	3	0·44	?	? ‡	? ‡
	Fort Augustus ℳ	72	50	68·7	53·7	60·8	+ 5·5	132	0	4	0·56	?	*	*
1. SCOTLAND, E.	Nairn	81	48	73·3	52·7	62·4	+ 6·9	143	0	2	0·36	−0·27	*	*
	Aberdeen	73	49	67·3	52·1	59·2	+ 3·7	120	0	3	0·42	−0·31	43	43
	Braemar ℳ	72	42	67·6	47·2	56·8	+ 4·3	104	0	4	0·44	−0·48	38‡	38‡
	Ochtertyre ℳ	75	47	71·4	51·6	60·9	+ 5·8	132	0	4	1·34	+0·51		
	Leith	77	50	72·1	52·7	61·8	+ 4·8	139	0	3	0·35	−0·23	*	*
	Marchmont ℳ	77	48	72·7	51·1	61·3	+ 6·8	135	0	3	0·33	−0·47	35	35
2. ENGLAND, N.E.	Alnwick Castle	69	49	66·7	50·9	58·3	+ 2·5	114	0	3	0·66	−0·04	*	*
	Durham	77	44	74·3	51·4	62·2	+ 5·9	141	0	3	0·56	−0·07	42	43
	Shields	73	50	67·1	53·1	59·7	+ 3·0	124	0	3	0·52	−0·09	*	*
	Scarborough ℳ	75	53	70·7	55·2	62·5	+ 4·8	144	0	2	0·33	−0·27	‡	‡
	York	77	46	73·9	52·4	62·5	+ 4·4	144	0	2	0·14	−0·41	44	45
	Spurn Head	72	52	68·9	57·0	62·6	+ 4·4	144	0	2	0·19	?	*	*
3. ENGLAND, E.	Hillington ℳ	84	40	76·8	47·2	61·1	+ 2·0	134	0	2	0·13	−0·47	41	42
	Yarmouth	69	52	67·3	58·9	62·9	+ 2·8	146	0	4	0·78	+0·28	*	*
	Geldeston	82	43	74·3	53·7	63·4	+ 3·3	150	0	4	0·49	+0·04	41	42
	Cambridge	85	47	78·1	53·9	65·3	+ 4·7	163	0	4	0·15	−0·38		
	Rothamsted	82	44	75·0	51·1	62·3	+ 2·1	142	0	3	0·07	−0·53	*	*
	Ingatestone	81	47	74·3	53·4	63·2	+ 2·5	148	0	4	0·57	+0·07	43‡	44‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	81	43	76·3	51·7	63·3	+ 4·1	149	0	2	0·31	−0·27	46‡	47‡
	Loughborough	82	46	77·6	51·9	64·0	+ 4·3	154	0	3	0·35	−0·27	*	*
	Leicester	83	48	77·9	54·2	65·3	+ 5·6	163	0	3	0·50	−0·15	47	48
	Cheadle ℳ	77	49	72·5	52·1	61·7	+ 2·8	138	0	3	0·29	−0·54	*	*
	Churchstoke ℳ	77	44	72·6	50·2	60·7	+ 1·9	131	0	3	0·47	−0·16	45	46
	Hereford ℳ	83	44	76·3	51·7	63·3	+ 3·4	149	0	3	0·51	−0·11	*	*
	Cirencester	81	41	73·9	49·9	61·9	+ 1·1	134	0	3	0·64	−0·12	57	59
	Oxford	81	49	74·3	53·7	63·4	+ 2·7	150	0	1	0·16	−0·39	53	55
5. ENGLAND, S.	London	83	45	76·6	54·7	65·0	+ 3·6	161	0	4	0·25	−0·28	39‡	41‡
	Strathfield Turgiss ℳ	84	44	76·8	50·7	63·0	+ 2·2	147	0	3	0·17	−0·36	*	*
	Dungeness	71	44	68·9	57·9	63·1	+ 2·4	148	0	4	0·68	+0·17	*	*
	Hastings (St. Leonard's)	73	52	69·7	58·2	63·6	+ 2·9	151	0	3	1·23	+0·64	38	40
	Southampton	79	46	74·3	54·5	63·8	+ 3·0	153	0	3	0·21	−0·41	49	51
	Hurst Castle	77	49	71·4	55·1	62·8	+ 2·1	146	0	3	0·22	−0·38	*	*
	Stowell ℳ	78	45	72·4	52·9	62·1	+ 2·5	141	0	4	0·81	?	53‡	55‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	69	55	66·6	57·3	61·7	+ 3·2	138	0	6	1·50	+0·31†	*	*
	Glasgow	71	50	68·6	52·4	60·0	+ 4·0	126	0	3	0·49	−0·41	27	27
	Ardrossan	70	51	66·1	52·7	59·0	+ 2·3	119	0	5	1·00	+0·08	*	*
	Glenlee	67	46	65·1	50·7	57·5	+ 2·6	109	0	4	1·18	?	*	*
	Douglas (Isle of Man)	70	49	65·6	53·1	59·0	+ 1·8	119	0	1	0·18	−0·67	37	38
7. ENGLAND, N.W.	Newton Reigny (Penrith)	75	42	71·5	49·5	59·8	+ 3·0	125	0	4	0·96	−0·22	43	44
	Barrow-in-Furness	75	53	69·4	56·9	62·8	+ 3·6	146	0	4	0·47	−0·38	*	*
	Stonyhurst	74	52	70·4	55·1	62·3	+ 3·8	142	0	3	0·64	−0·43	45	46
	Blackpool ℳ	76	50	71·1	54·1	62·1	+ 2·4	141	0	4	1·41	+0·71	38	39
	Manchester	77	48	72·3	54·2	62·7	+ 3·6	145	0	3	0·27	−0·54	*	*
	Liverpool Obsy (Bidston)	77	52	72·7	54·9	63·6	+ 3·8	151	0	2	0·45	−0·23	*	*
	Llandudno ℳ	77	53	72·0	55·2	63·1	+ 3·3	148	0	3	0·21	−0·44	41	42
	Holyhead	73	56	69·0	57·7	63·0	+ 4·0	147	0	4	0·41	−0·27	*	*
8. ENGLAND, S.W.	Llandovery	83	43	75·6	52·3	63·3	+ 4·4	149	0	3	1·12	−0·03	*	*
	Pembroke	67	54	64·4	56·9	60·3	+ 2·5	128	0	5	0·64	−0·06	51	53
	Arlington (N. Devon)	78	46	72·9	53·6	62·7	+ 4·2	145	0	3	0·65	−0·60	*	*
	Cullompton ℳ	77	44	71·8	51·4	61·0	+ 0·9	133	0	2	0·24	−0·46	52	54
	Falmouth	71	53	68·0	57·6	62·5	+ 2·3	144	0	4	0·75	−0·17	42	44
	Plymouth	77	52	71·0	58·2	64·2	+ 2·8	155	0	3	0·05	−0·68	37	39
	Prawle Point	73	51	67·4	55·0	60·8	+ 2·4	132	0	3	0·32	?	*	*
9. IRELAND, N.	Malin Head	70	54	67·9	56·4	61·8	+ 5·4	139	0	5	0·55	?	*	*
	Londonderry	74	53	70·3	55·4	62·4	+ 5·2	143	0	5	0·84	−0·01	*	*
	Mullaghmore	70	53	67·9	57·4	62·3	+ 4·1	142	0	6	0·74	−0·09	*	*
	Belmullet	69	56	66·7	57·9	62·0	+ 5·0	140	0	6	1·63	?	*	*
	Markree Castle	71	50	68·2	53·1	60·1	+ 2·3	127	0	6	1·10	+0·29	29	30
	Brookeborough	73	51	68·7	53·9	60·9	+ 2·9	132	0	5	0·75	?	*	*
	Armagh	69	54	67·3	55·9	61·3	+ 3·3	135	0	5	1·38	+0·74	29	30
	Donaghadee	70	55	65·6	53·0	60·5	+ 3·6	130	0	6	0·59	−0·11	*	*
	Edgeworthstown	73	48	69·3	53·6	61·0	+ 2·9	133	0	6	1·16	+0·37	*	*
10. IRELAND, S.	Dublin	74	56	70·0	58·0	63·6	+ 5·4	151	0	6	0·67	+0·04	45	46
	Parsonstown	74	54	70·0	56·0	62·6	+ 4·1	144	0	5	1·38	+0·58	41	42
	Kilkenny	74	51	69·6	55·1	61·9	+ 3·7	139	0	6	1·65	+0·90	*	*
	Waterford	73	53	69·1	56·0	62·2	+ 3·7	141	0	6	1·54	+0·69	*	*
	Roche's Point	71	58	67·6	59·1	63·1	+ 3·7	148	0	6	1·60	+0·73	*	*
	Valencia	67	57	65·6	58·6	61·9	+ 3·2	139	0	7	3·25	+2·18	27	28
	Killarney	70	51	66·3	56·7	61·2	+ 2·1	134	0	6	3·08	?	*	*
	Foynes	74	54	69·1	55·2	62·3	+ 4·2	142	0	6	1·11	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	69	57	63·0	58·6	63·0	+ 2·3	147	0	6	1·28	+0·68	*	*
	Jersey (Noirmont)	76	52	71·6	56·1	63·4	+ 1·7	150	0	3	0·80	+0·24	41	43

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, 6, NORTH BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. IV. No. 35.] *Second Series.* WEEK ENDING MONDAY, 5TH SEPTEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

DISTRICTS. (See p. 140.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	64	40	58·9	48·1	53·2	0 (average).	78	− 4	0	0	1582	+200	547	+ 37
1. SCOTLAND, EAST	69	42	62·9	49·8	56·0	2 above.	98	+ 1	0	0	2030	+225	584	+ 41
2. ENGLAND, N.E.	70	46	64·8	52·8	58·5	2 above.	116	+ 6	0	0	2155	+227	564	+ 82
3. ENGLAND, EAST	75	50	67·1	54·3	60·4	1 above.	129	+ 6	0	0	2277 *	+ 39	675	+168
4. MIDLAND COUNTIES	72	49	65·4	52·5	58·6	0 (average).	116	− 6	0	0	2303	+ 75	670	+166
5. ENGLAND, SOUTH	71	50	65·5	56·1	60·5	1 above.	130	− 1	0	0	2415	+ 8	524	+151
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	65	40	61·5	50·8	55·9	1 above.	97	− 6	0	0	1989	+ 96	445	+ 47
7. ENGLAND, N.W.	70	43	62·8	53·6	57·9	0 (average).	111	0	0	0	2114	+102	501	+118
8. ENGLAND, S.W.	68	48	63·3	53·8	58·3	0 (average).	114	− 5	0	0	2376	+ 95	405	+172
9. IRELAND NORTH	69	40	61·7	50·2	55·7	1 below.	96	− 8	0	0	2234	+257	573	+ 23
10. IRELAND, SOUTH	68	44	63·6	51·8	57·4	1 below.	108	− 3	0	0	2517	+184	336	+ 97
— CHANNEL ISLANDS	71	55	65·3	57·5	61·2	0 (average).	134	+ 4	0	0	2519	+ 79	170	+ 77

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 140.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	6	16	9 more.	150	+ 3	26·1	+ 4·1	28	29	826	−128	25	− 3
1. SCOTLAND, EAST	7	21	13 more.	113	−14	15·1	− 5·5	24	25	1133	+ 30	34	+ 1
2. ENGLAND, N.E.	7	9	3 more.	100	−22	9·7	− 8·0	27	28	1136	+132	35	+ 4
3. ENGLAND, EAST	7	11	5 more.	94	−30	11·0	− 5·2	36	39	1410 *	+188	43	+ 5
4. MIDLAND COUNTIES	7	17	10 more.	89	−33	12·1	− 6·6	28	30	1257	+169	39	+ 5
5. ENGLAND, SOUTH	7	20	14 more.	87	−30	12·4	− 4·8	28	30	1365	+192	42	+ 6
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	7	25	16 more.	118	−18	23·9	− 4·8	27	28	1213	+158	37	+ 5
7. ENGLAND, N.W.	7	19	11 more.	94	−32	14·8	− 6·8	20	21	1267	+211	39	+ 7
8. ENGLAND, S.W.	7	21	11 more.	92	−41	13·9	−12·8	23	25	1566	+307	48	+ 9
9. IRELAND, NORTH	7	28	20 more.	119	−34	20·5	− 2·3	16	17	1135	+155	35	+ 5
10. IRELAND, SOUTH	7	20	12 more.	101	−41	17·9	− 7·5	27	29	1370	+253	42	+ 8
— CHANNEL ISLANDS	6	15	8 more.	102	−41	12·6	− 7·1	34	37	1706	+210	53	+ 6

General Remarks.

Weather has been dull, unsettled, and very rainy in all parts of the Kingdom.

Temperature has continued a little above the mean in some of the English and Scotch districts, while in others it has just equalled its normal value for the season, but in Ireland a slight deficit is shown. The highest of the maxima, which were recorded on August 30th, varied from 64° in "Scotland, N." and 65° in "Scotland, W." to 75° in "England, E." The minima were generally rather high for the season, in many cases ranging between 55° and 60°. Towards the end of the period, however, they became lower, and varied from 40° in "Scotland, N." and "Ireland, N." to 50° in "England, E." and "England, S." In the "Channel Islands" the lowest reading was 55°.

Rainfall has been more than the mean over the entire Kingdom, the excess being very considerable at all excepting the north-eastern and eastern English stations.

Bright sunshine shows a very decided decrease in duration, the percentage of the possible number of hours ranging from 17 in "Ireland, N." to 39 in "England, E."

Depressions observed.—The distribution of barometric pressure continued cyclonic, the depressions travelling in a north-easterly direction over the more northern and north-western parts of our Islands, and some subsidiary disturbances passing over the southern parts of the Kingdom. The most important depression, which was unusually deep for the time of year, moved east-north-eastwards from the south of Ireland to Lancashire during the night of the 1st—2nd and subsequently disappeared north-north-eastwards. During its passage over our Islands it caused severe Westerly gales at all our more southern stations, and strong winds or gales in nearly all other districts. At the end of the period another depression was moving north-eastwards over our north-western coasts and the wind on our south and south-west coasts had again increased from the South-Westward and Westward.

* These values have been altered slightly owing to the receipt of further information.

A 52118. 350.—9/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

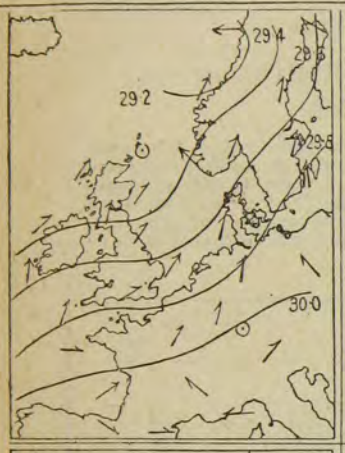
Weather

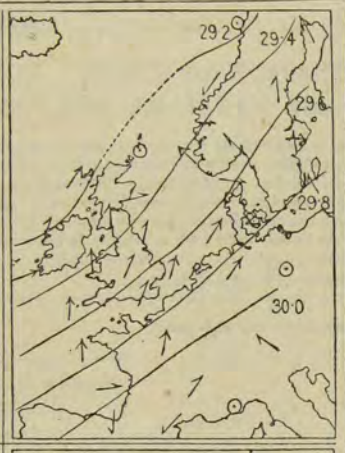
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, August 30.

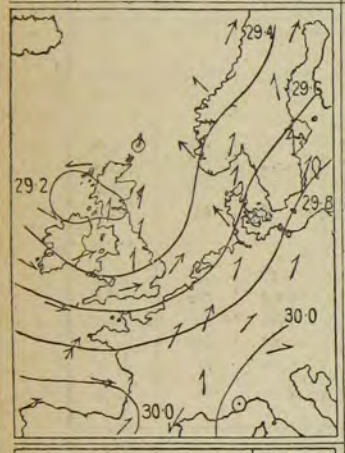
Weather fine in Sweden, Germany, and the south-east of our Islands, but cloudy and showery in most other localities. Rain falling generally later, heavily in the south-west and south.

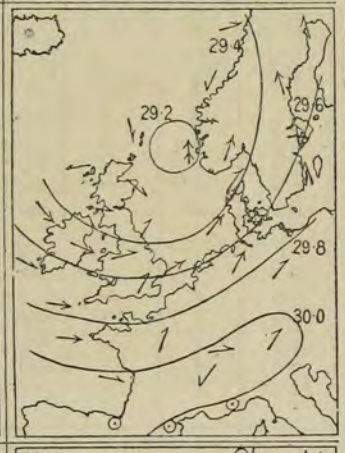
Temperature scarcely changed ; readings over the United Kingdom ranging at 8 a.m. from 64° at Jersey to 54° in the Shetlands. Maxima exceeding 70° over eastern and central England.

Wind Westerly over the Bay of Biscay, but chiefly South-Westerly elsewhere ; strong in Scandinavia and fresh on our own western and southern coasts. Subsequently backing to South in Ireland.

Sea rather rough on exposed parts of our western and southern coasts.

Barometer rising in France, Germany, and the south of our Islands, but falling elsewhere. Pressure high over Spain and the south of France, with depression skirting our extreme northern coasts in a north-easterly direction. Brisk fall taking place in west later.





Wednesday, August 31.

Weather varying greatly, but cloudy and showery in most districts. Thunder occurring later in many parts of England, France, and Holland.

Temperature fallen a little generally ; readings over our Islands ranging at 8 a.m. from 64° at Jersey to 54° in the Shetlands.

Wind Westerly or South-Westerly over the greater part of Ireland, England, and France, with a moderate gale in the Channel, but strong from South-East on the eastern shores of the North Sea, and light from East in the north of Scotland.

Sea rough or high on all our south and south-west coasts.

Barometer falling at all but our western stations. Areas of high pressure lying respectively over Spain and Switzerland, with a rather deep depression over Scotland. Depression subsequently moving away north-eastwards, and barometer rising at all but the Scandinavian stations.

Thursday, September 1.

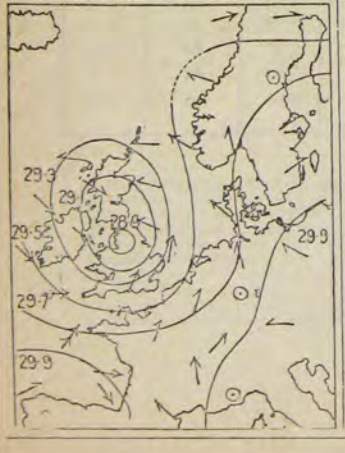
Weather dull and rainy on our south-west coasts as well as in the north of Scandinavia, but fair or fine elsewhere. Rain extending later over the greater part of Ireland and England, heavy falls in many places.

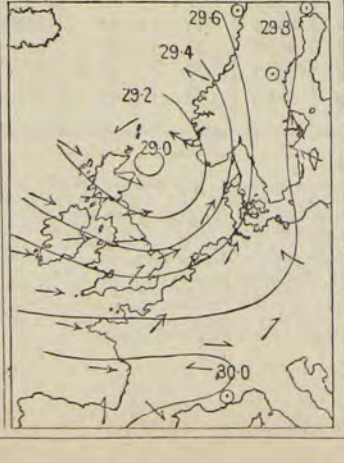
Temperature fallen a little ; readings over our Islands ranging at 8 a.m. from 62° at Jersey, Hurst Castle, and Dungeness, to 54° in the Shetlands.

Wind South-Easterly in the west of Ireland, but South-Westerly elsewhere ; fresh or strong in force on our southern coasts. Subsequently increasing to moderate gale from South in the south of Ireland, and to strong gale from South-West in the south of England.

Sea rough in the south-west and south generally.

Barometer falling briskly on our south-west coasts, but rising elsewhere. Large area of high pressure lying over Spain and the southern parts of France and Germany, depression of previous day now shown off the north-west of Norway, but new disturbance approaching South Ireland. Rapid fall taking place in west and south.





Friday, September 2.

Weather fair at most of the Continental stations, but rainy in the north and east of our Islands, and showery in the west and south. Thunderstorms and heavy rain occurring in Scotland later.

Temperature changed little and irregularly ; readings over our Islands ranging at 8 a.m. from 62° at Jersey to 53° in the Shetlands.

Wind North-Westerly on our western coasts, Westerly or South-Westerly in the South, South-Easterly over the North Sea, and Easterly in Scotland ; strong at all but our northern and north-eastern stations, with a hard gale in the Channel. Gale moderating later.

Sea high in the Bristol and English Channels, and rough on all but our northern coasts.

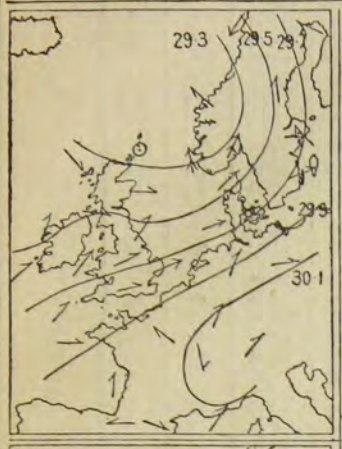
Barometer rising on the west coasts of our Islands and France as well as in Sweden, but falling elsewhere. Pressure highest in Spain, but relatively high over Central Europe ; deep depression over our Islands, with centre situated close to Liverpool. Depression subsequently travelling north-north-eastwards, and rise taking place at all but our northern stations.

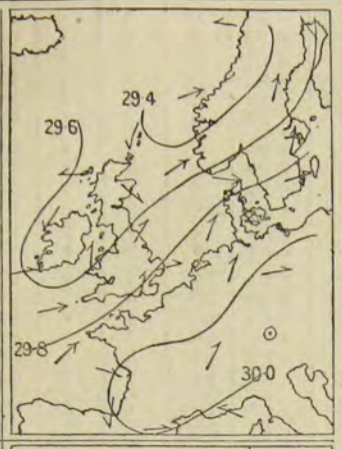
SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

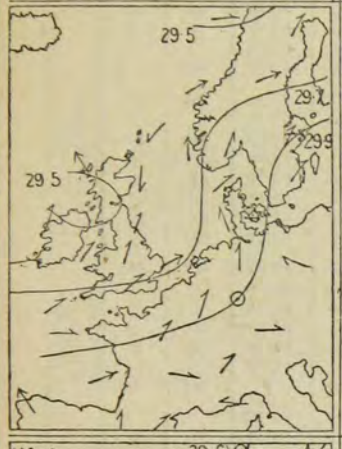
Synoptic Charts.

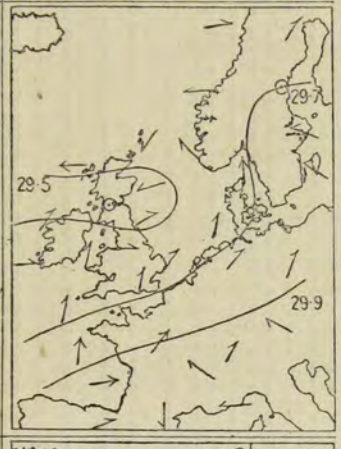
PRESSURE AND WIND.

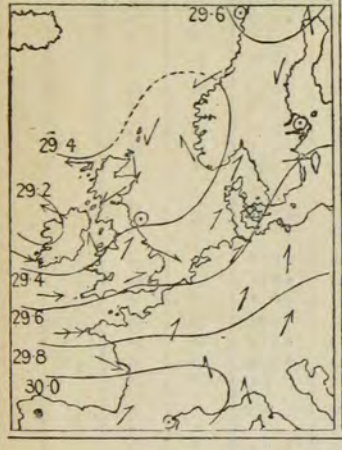
8 a.m. | **6 p.m.**

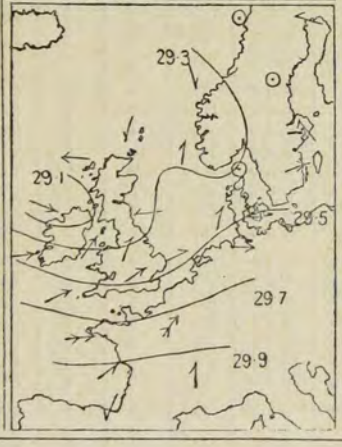












Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Saturday, September 3.

Weather fair generally, but showery at some of our south-western stations. Showers failing later in most parts of the Kingdom.

Temperature risen a little at all but the German and eastern French stations; readings over our Islands ranging at 8 a.m. from 64° at Jersey to 53° at Stornoway.

Wind chiefly South-Westerly, but drawing into South-East or East in the west of Norway; moderate or fresh in force generally. Subsequently shifting to East in the north of Scotland.

Sea rough on our south and south-west coasts and also off the south of Norway.

Barometer rising at all but the Scandinavian stations. Pressure highest over South Germany and the east of France; depression of previous day now passing away to the northward of our Islands. New disturbance forming later over our western coasts, and barometer falling slightly in many parts of Ireland and England.

Sunday, September 4.

Weather changeable and showery in most districts.

Temperature risen a little in the north of Sweden and the south of France, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 63° at Jersey to 51° in the Shetlands.

Wind Westerly or South-Westerly over the greater part of England, Ireland, and France, but South-Easterly or Southerly over the North Sea and Scotland; strong at some of our southern stations, but light or moderate elsewhere. Subsequently backing to East in the north of Scotland.

Sea rough in the Channel and Bay of Biscay, but moderate to smooth elsewhere.

Barometer falling a little over England, France, and Germany, but rising in most other countries. Pressure highest over Spain, but relatively high over Central Europe, with shallow depressions over the north of Scandinavia and the west of Scotland. Fall taking place generally later.

Monday, September 5.

Weather cloudy generally, with rain and mist in many parts of our Islands as well as in the west of France. Some improvements taking place in south later.

Temperature fallen a little in Scandinavia and the north and east of our Islands, but risen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 62° at Roche's Point to 51° at Sumburgh Head, and Nairn.

Wind strong from South-West or West over the south of our Islands and the west of France, but light Easterly in Scotland and the west of Norway. Subsequently increasing to moderate gale from South-West or West on many parts of our western and southern coasts.

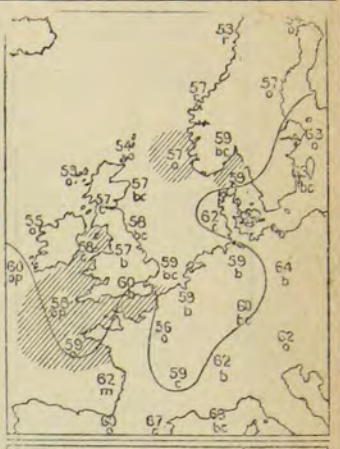
Sea high at Prawle Point, and rough in the south and south-west generally.

Barometer falling at all but the southern French stations. Pressure highest over Spain and the south-west of France, with a deep depression off the west of Ireland and shallower disturbances over the North Sea and the north of Scandinavia. Depression in west subsequently moving north-eastwards, and barometer rising on our west and south-west coasts.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟫⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	60	45	57·0	48·0	52·3	− 0·6	72	0	6	0·49	−0·27	*	*
	Stornoway	64	46	59·4	50·3	54·6	+ 1·5	88	0	7	1·15	+0·28	28	29
	Wick	63	40	59·0	45·7	52·0	− 1·8	70	0	6	0·90	+0·33	*	*
	Lairg §	67	44	60·1	46·4	52·9	− 0·2	76	0	7	2·21	+1·51	*	*
	Glencarron §	66	43	58·5	47·6	52·8	− 0·2	76	0	5	2·21	?	? ‡	? ‡
	Fort Augustus §	63	50	59·0	50·7	54·7	0·0	89	0	7	2·77	?	*	*
1. SCOTLAND, E.	Nairn	67	44	61·4	49·0	54·9	+ 0·3	90	0	6	2·39	+1·76	*	*
	Aberdeen	69	49	63·4	51·6	57·2	+ 2·4	106	0	6	1·54	+0·80	23	24
	Braemar §	65	43	59·7	46·6	52·8	+ 1·2	76	0	7	1·73	+0·82	22‡	23‡
	Ochtertyre §	68	48	64·3	50·3	57·0	+ 2·4	105	0	6	2·34	+1·49		
	Leith	69	48	64·9	52·6	58·5	+ 2·3	116	0	7	1·68	+1·10	*	*
	Marchmont §	66	42	63·4	48·7	55·7	+ 1·9	96	0	7	2·64	+1·82	27	28
2. ENGLAND, N.E.	Alnwick Castle	65	46	62·9	50·6	56·5	+ 1·4	102	0	7	1·64	+0·94	*	*
	Durham	67	47	65·2	51·9	58·2	+ 2·5	113	0	6	0·71	+0·10	29	31
	Shields	68	48	64·1	53·0	58·3	+ 2·5	114	0	7	0·96	+0·35	*	*
	Scarborough ℳ	69	52	64·9	53·4	58·9	+ 2·0	118	0	7	0·79	+0·17	21‡	22‡
	York	70	50	65·1	53·6	59·1	+ 1·9	120	0	7	0·96	+0·36	30	32
	Spurn Head	70	51	66·3	54·1	59·9	+ 2·4	125	0	7	0·45	?	*	*
3. ENGLAND, E.	Hillington ℳ	72	51	67·3	54·1	60·4	+ 2·3	129	0	6	0·70	+0·06	33	35
	Yarmouth	70	51	66·7	55·4	60·8	+ 1·3	132	0	6	0·84	+0·24	*	*
	Geldeston	73	50	68·1	55·2	61·3	+ 2·2	135	0	7	0·81	+0·30	44	47
	Cambridge	75	50	69·0	53·4	60·8	+ 1·0	132	0	6	0·81	+0·27	36	39
	Rothamsted	73	50	65·8	53·5	59·4	0·0	122	0	7	1·86	+1·24	*	*
	Ingatestone	69	52	65·8	54·1	59·7	− 0·1	124	0	7	1·32	+0·79	32‡	34‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	70	50	65·4	53·1	59·0	+ 0·9	119	0	7	1·85	+1·24	26‡	28‡
	Loughborough	72	51	67·1	54·1	60·3	+ 1·7	128	0	7	1·16	+0·51	*	*
	Leicester	72	51	67·3	52·4	59·5	+ 0·9	123	0	7	1·40	+0·73	27	29
	Cheadle ℳ	66	49	63·2	50·6	56·6	− 1·0	102	0	7	2·87	+2·03	*	*
	Churchstoke ℳ	66	50	62·9	51·9	57·2	− 0·5	106	0	7	2·44	+1·79	38	40
	Hereford ℳ	71	49	66·5	51·8	58·8	− 0·2	118	0	7	1·08	+0·40	*	*
	Cirencester	69	?50	64·9	?51·3	?57·8	?− 1·5	?111	0	7	1·71	+0·93	20	22
	Oxford	71	52	65·7	54·4	59·8	+ 0·1	125	0	7	1·25	+0·64	29	31
5. ENGLAND, S.	London	71	52	67·3	55·3	61·0	+ 0·3	133	0	7	1·53	+0·95	27‡	29‡
	Strathfield Turgiss ℳ	71	52	66·4	55·3	60·6	+ 0·5	130	0	7	1·89	+1·31	*	*
	Dungeness	67	56	65·7	58·9	62·1	+ 2·1	141	0	6	1·59	+1·03	*	*
	Hastings (St. Leonard's)	66	55	64·6	57·8	61·0	+ 0·9	133	0	6	1·54	+0·92	25	27
	Southampton	69	54	66·2	55·6	60·7	+ 1·0	131	0	7	2·95	+2·25	31	33
	Hurst Castle	65	54	64·0	56·0	59·8	0·0	125	0	6	2·67	+1·97	*	*
	Stowell ℳ	67	50	64·0	53·5	58·5	− 0·4	116	0	7	1·86	?	29‡	31‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	64	48	61·0	50·9	55·7	− 0·1	96	0	6	0·88	−0·49†	*	*
	Glasgow	65	44	61·7	50·2	55·7	+ 0·4	96	0	7	4·31	+3·37	20	21
	Ardrossan	63	48	61·4	50·6	55·7	0·0	96	0	7	1·88	+0·97	*	*
	Glenlee	65	40	61·4	50·3	55·6	+ 1·7	95	0	7	3·97	?	*	*
	Douglas (Isle of Man)	64	46	62·2	51·9	56·8	+ 0·7	104	0	7	1·32	+0·45	33	35
7. ENGLAND, N.W.	Newton Reigny (Penrith)	65	43	61·9	50·8	56·1	+ 0·5	99	0	7	2·46	+1·69	23	24
	Barrow-in-Furness	64	54	62·0	55·7	58·7	+ 0·8	117	0	7	1·53	+0·66	*	*
	Stonyhurst	70	49	62·0	52·6	57·1	− 0·3	106	0	7	3·67	+2·56	18	19
	Blackpool ℳ	66	53	62·6	55·1	58·7	+ 0·2	117	0	7	1·56	+0·81	21	22
	Manchester	69	50	63·1	52·4	57·5	− 0·7	109	0	7	2·06	+1·19	*	*
	Liverpool Obsy (Bidston)	70	52	63·6	53·7	58·4	− 0·4	115	0	7	1·69	+0·94	*	*
	Llandudno ℳ	69	52	63·6	54·4	58·8	− 0·4	118	0	7	0·98	+0·28	18	19
	Holyhead	65	53	62·4	54·1	58·1	− 0·4	113	0	7	1·25	+0·54	*	*
8. ENGLAND, S.W.	Llandovery	67	48	64·3	50·4	57·0	− 1·1	105	0	7	2·89	+1·72	*	*
	Pembroke	64	53	61·7	55·7	58·6	+ 1·8	116	0	6	1·55	+0·80	28	30
	Arlington (N. Devon)	65	49	61·7	51·9	56·6	− 1·0	102	0	7	3·38	+2·13	*	*
	Cullompton ℳ	68	49	65·3	53·0	58·9	− 0·7	118	0	7	1·62	+0·85	22	24
	Falmouth	66	53	63·5	55·0	59·1	− 0·6	120	0	6	1·74	+0·74	24	26
	Plymouth	68	55	64·3	56·0	60·0	− 0·5	126	0	6	2·19	+1·35	19	20
	Prawle Point	64	53	62·0	54·7	58·2	+ 0·6	113	0	7	1·36	?	*	*
9. IRELAND, N.	Malin Head	65	50	59·7	53·1	56·2	+ 0·8	99	0	7	2·47	?	*	*
	Londonderry								0				*	*
	Mullaghmore	65	50	62·0	52·0	56·8	− 0·5	104	0	7	2·65	+1·70	*	*
	Belmullet	65	49	60·7	54·3	57·4	+ 1·1	108	0	6	3·47	?	*	*
	Markree Castle	64	40	61·3	47·6	53·8	− 3·2	83	0	7	3·51	+2·73	10	11
	Brookeborough	65	43	61·4	47·3	54·0	− 3·2	84	0	7	3·07	?	*	*
	Armagh	66	42	63·0	49·0	55·7	− 1·4	96	0	5	2·11	+1·43	22	23
	Donaghadee	69	45	63·7	50·4	56·7	+ 0·6	103	0	7	2·80	+2·08	*	*
	Edgeworthstown	64	45	62·0	48·4	54·9	− 2·7	90	0	7	2·20	+1·42	*	*
10. IRELAND, S.	Dublin	68	51	64·0	53·0	58·2	+ 0·7	113	0	7	1·05	+0·43	23	24
	Parsonstown	67	48	63·3	51·0	56·9	− 1·2	104	0	6	1·59	+0·78	24	26
	Kilkenny	68	47	65·3	49·6	57·1	− 0·5	106	0	6	0·97	+0·21	*	*
	Waterford	68	44	65·4	50·0	57·3	− 0·5	107	0	7	1·36	+0·49	*	*
	Roche's Point	64	49	62·6	53·4	57·8	− 0·8	111	0	7	2·80	+1·90	*	*
	Valencia	65	53	63·4	53·7	58·3	+ 0·2	114	0	7	2·05	+0·95	34	37
	Killarney	67	48	62·7	52·1	57·2	− 1·3	106	0	7	3·10	?	*	*
	Foynes	68	50	62·3	51·6	56·7	− 1·1	103	0	7	2·95	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	65	55	63·4	56·0	59·5	− 0·9	123	0	7	2·00	+1·31	*	*
	Jersey (Noirmont)	71	57	67·1	59·0	62·9	+ 1·6	146	0	5	0·90	+0·26	34	37

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 36.] *Second Series.* WEEK ENDING MONDAY, 12TH SEPTEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 144.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	61	38	54·5	43·3	48·7	4 below.	47	−28	0	0	1629	+168	547	+ 37
	1. SCOTLAND, EAST	66	36	57·9	44·8	51·1	2 below.	64	−25	0	0	2094	+195	584	+ 41
	2. ENGLAND, N.E.	67	36	59·7	46·9	52·9	3 below.	76	−26	0	0	2231	+201	564	+ 82
	3. ENGLAND, EAST	69	36	63·2	48·3	55·6	3 below.	95	−20	0	0	2372	+ 24	675	+168
	4. MIDLAND COUNTIES	69	34	63·5	46·2	53·8	3 below.	83	−33	0	0	2386	+ 53	670	+166
	5. ENGLAND, SOUTH	69	36	63·7	49·0	56·0	3 below.	98	−25	0	0	2513	− 11	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	63	35	58·0	46·1	51·8	3 below.	69	−26	0	0	2058	+ 70	445	+ 47
	7. ENGLAND, N.W.	64	39	59·2	49·1	53·9	3 below.	83	−21	0	0	2197	+ 81	501	+118
	8. ENGLAND, S.W.	67	37	61·8	49·7	55·4	2 below.	94	−19	0	0	2470	+ 79	405	+172
	9. IRELAND, NORTH	64	39	58·4	47·8	52·9	3 below.	76	−21	0	0	2310	+237	373	+ 23
	10. IRELAND, SOUTH	74	37	62·0	48·5	55·0	2 below.	91	−13	0	0	2608	+269	336	+ 97
	— CHANNEL ISLANDS	69	49	64·1	54·9	59·3	1 below.	121	− 3	0	0	2640	+ 76	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 144.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	13	6 more.	156	+ 5	27·4	+ 4·6	21	23	847	−139	25	− 4
	1. SCOTLAND, EAST	6	7	1 less.	119	−11	15·8	− 5·6	23	24	1156	+ 17	34	+ 1
	2. ENGLAND, N.E.	6	15	8 more.	106	−20	11·2	− 7·1	29	32	1165	+133	34	+ 3
	3. ENGLAND, EAST	5	4	2 less.	99	−29	11·4	− 5·5	33	36	1443	+191	43	+ 5
	4. MIDLAND COUNTIES	4	4	3 less.	93	−32	12·5	− 6·9	31	35	1288	+171	39	+ 6
	5. ENGLAND, SOUTH	5	4	3 less.	92	−28	12·8	− 5·1	34	37	1390	+197	42	+ 6
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	5	14	1 less.	123	−18	25·3	− 4·7	31	34	1244	+154	37	+ 5
	7. ENGLAND, N.W.	6	9	0 (average).	100	−39	15·7	− 6·7	28	30	1295	+106	38	+ 6
	8. ENGLAND, S.W.	4	6	4 less.	96	−41	14·5	−13·2	36	41	1602	+302	48	+ 9
	9. IRELAND, NORTH	5	7	2 less.	124	−33	21·2	− 2·4	18	20	1153	+146	34	+ 4
	10. IRELAND, SOUTH	5	4	4 less.	106	−41	18·3	− 7·9	29	32	1399	+248	42	+ 7
	— CHANNEL ISLANDS	5	3	5 less.	107	−40	12·9	− 7·6	36	40	1742	+210	53	+ 7

General Remarks.

Weather has continued in an unsettled condition in all districts, with heavy falls of rain in the north of Scotland and north-east of England, and lesser amounts elsewhere.

Temperature has been below the mean, the deficit ranging from 1° in the "Channel Islands" to 3° in most other districts, and to 4° in "Scotland, N." The highest of the maxima, which were generally recorded on the 6th, varied from 61° to 66° in Scotland, from 64° to 74° in Ireland, and from 64° to 69° in England. The lowest of the minima, which were registered in most places on the 8th, ranged from 34° in the "Midland Counties" to 39° in "England, N.W." and "Ireland, N.", and to 49° in the "Channel Islands".

Rainfall has been considerably more than the mean in "Scotland, N." and "England, N.E.", but less in nearly all other districts.

Bright sunshine shows a slight increase in most districts, the percentage of the possible amount of duration ranging from 20 in "Ireland, N." to 40 in the "Channel Islands" and 41 in "England, S.W."

Depressions observed.—The distribution of barometric pressure remained very similar to that of last week, and depressions continued to travel in a north-easterly direction over or outside our north-western and northern coasts, while some subsidiary disturbances passed more directly over us. The wind, which consequently varied between South-West and West or North-West, increased to a moderate to fresh gale at times on our more northern and western coasts, and to a fresh or strong breeze in the south and east.

A 52145. 350.—9/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

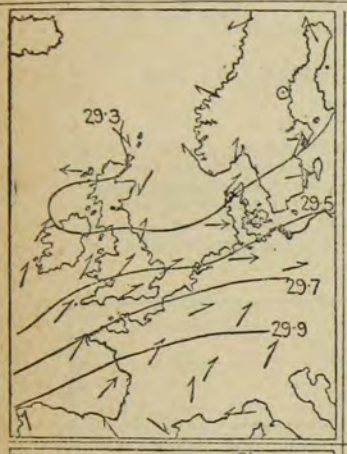
Weather

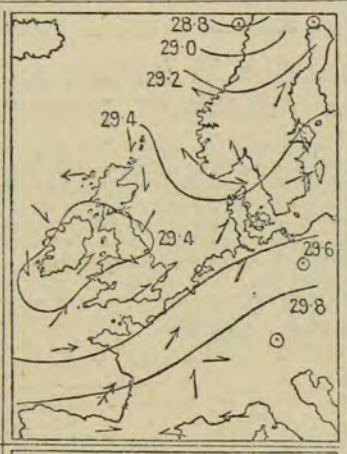
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, September 6.

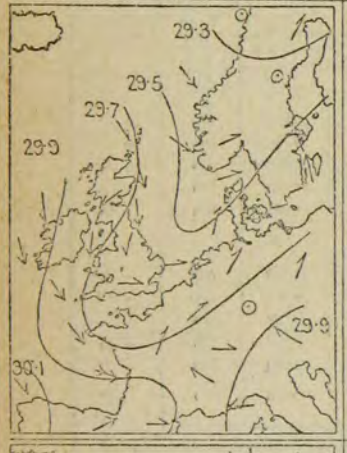
Weather cloudy generally, with rain or passing showers at several of our western and northern stations. Rain extending later to nearly all parts of the Kingdom.

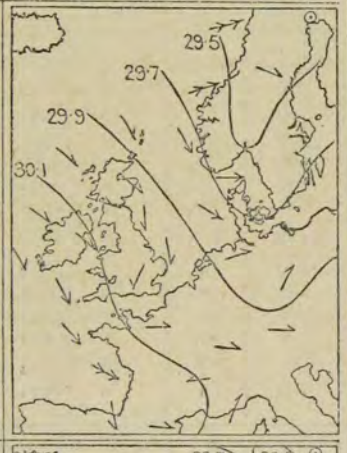
Temperature fallen a little in the east of Scotland and south of England, but risen elsewhere; readings over our Islands ranging at 8 a.m. from 63° at Jersey to 49° at Sumburgh Head.

Wind light South-Easterly in the west of Norway and North-Easterly in Scotland, but South-Westerly elsewhere; fresh or strong in force on our western and southern coasts. Subsequently shifting to the Northward in the west of Ireland.

Sea rough on our south or south-west coasts generally, as well as at Stornoway, but moderate to smooth elsewhere.

Barometer rising in Great Britain, the Netherlands, and Germany, but falling elsewhere. Pressure highest in Spain, with a large area of low readings over Scandinavia and Scotland, and a small depression off the west of Ireland. Latter disturbance subsequently advancing eastwards over England.





Wednesday, September 7.

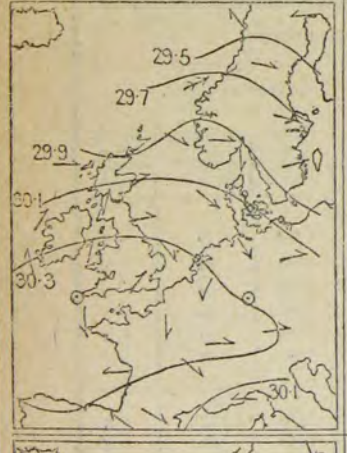
Weather rainy over central England and showery at several of our northern stations, but fair in most other localities. Improvement taking place over our Islands later.

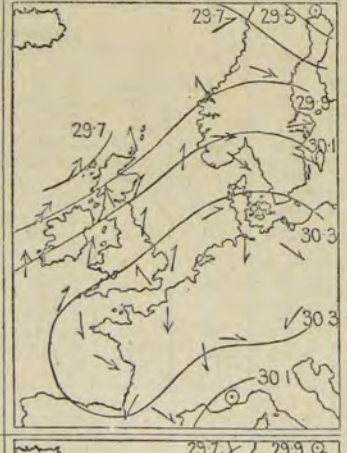
Temperature falling generally; readings over our Islands ranging at 8 a.m. from 63° at Hurst Castle to 46° in the Shetlands.

Wind Northerly in the more northern parts of our Islands, but North-Westerly in the south, and South-Westerly over the Netherlands, Germany, and Denmark; strong in force at some of our western and northern stations. Subsequently backing to North-West on our northern coast.

Sea rough on our south-west coasts, as well as at Shields and Holyhead.

Barometer rising generally. Pressure highest off the north-west of Spain, with a depression over the north of Scandinavia, and some "V-shaped" subsidiary disturbances over the North Sea and the east of England. Depressions subsequently moving eastwards, and barometer continuing to rise generally.





Thursday, September 8.

Weather fine over our Islands and their immediate neighbourhood, but dull in Sweden, Germany, and the Netherlands. Rain setting in later at several of our western and northern stations.

Temperature risen a few degrees in the north of our Islands, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 60° at Scilly, Prawle Point, and Jersey, to 43° at Loughborough.

Wind moderate or fresh from South or South-West in Scotland and the west of Ireland, and from North-West on the eastern shores of the North Sea, but light from North-East or East on the south of our Islands and the west of France. Subsequently increasing to gale from South-West on our extreme north-west coasts.

Sea rough at Christiansund and rather rough at Lorient and Biarritz, but moderate to smooth elsewhere.

Barometer rising at all but our extreme northern stations. Large anticyclone lying over the greater part of England, Ireland, and France, with low pressures in the north of Scandinavia. Depression subsequently advancing to our extreme western coast, and barometer falling quickly in west and north.

Friday, September 9.

Weather dull and rainy in the west and north-west of our Island, but fair or fine elsewhere. Slight rain falling in east and south later.

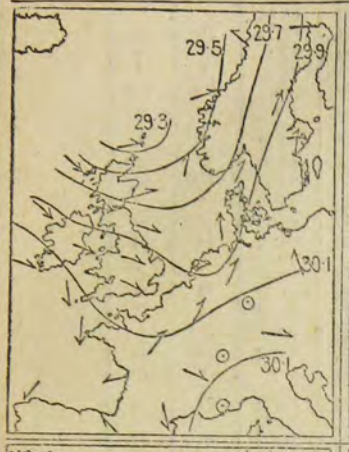
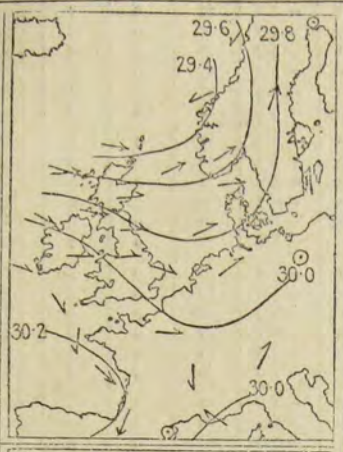
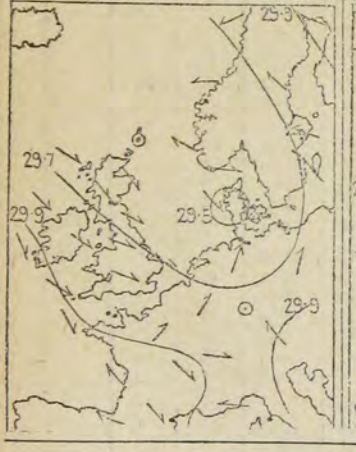
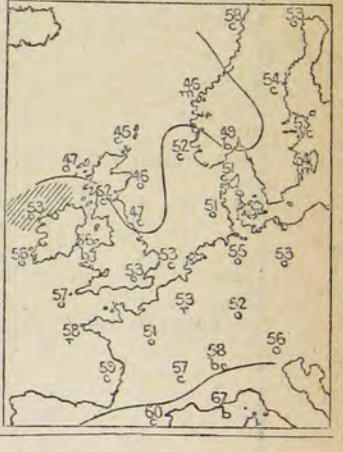
Temperature risen over our Islands and Scandidavia, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 60° at Aberdeen, Parsonstown, Valencia, and Jersey to 48° at Dungeness.

Wind light Easterly in the west of France, but Southerly or South-Westerly elsewhere; strong in force on the more exposed parts of our western and northern coasts. Subsequently veering to West on our extreme western coasts.

Sea high at Stornoway and rather rough at Ardrossan and Holyhead.

Barometer falling at all but the Scandinavian stations. Pressure highest over Germany and Central France, with a rather deep depression off the north of Scotland. Subsidiary disturbances subsequently moving eastward across the United Kingdom.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, September 10.** *Weather* showery and squally on our extreme north-west coasts and rainy at Dungeness and Helder, but fair in most other localities. Showers falling later at several of our eastern and southern stations. *Temperature* fallen several degrees in the west and north of our Islands, but risen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 60° at Jersey and Dungeness to 46° at Sumburgh Head. *Wind* Westerly or North-Westerly in our Islands; very strong in force on our north and north-west coasts. Strong from South or South-East on the eastern shores of the North Sea; light Easterly in the south-west of France. *Sea* rough in the north and north-west, but moderate to smooth elsewhere. *Barometer* falling at all but our western and south-western stations. Pressure highest over the Bay of Biscay, with a rather deep depression near the Shetlands and some subsidiary disturbances over the North Sea and the south-east of England. Depressions subsequently moving eastwards and barometer rising in most places.	
		Sunday, September 11. *Weather* rainy over the northern half of our Islands, but fair or fine elsewhere. Improvement taking place in north later. *Temperature* changed irregularly; readings over the United Kingdom ranging at 8 a.m. from 60° at Jersey to 45° at Wick. *Wind* moderate to strong from West or North-West over Scotland, Ireland, and the west of France, but South-Westerly over England and the North Sea and South-Easterly in Scandinavia. Subsequently veering to the north-westward in most parts of our Islands. *Sea* rough off the north of Scotland as well as at Mullaghmore and Holyhead. *Barometer* falling at all but our northern stations. Anti-cyclone lying over the Bay of Biscay, with a large depression off the west of Norway, and a small subsidiary disturbance over our north-west coasts. Latter depression subsequently moving eastwards to the North Sea, and barometer rising at all our western and northern stations.	
		**Monday, September 12.** *Weather* cloudy generally, with rain at Cape Grisnez and Brussels, and passing showers at several of our western stations. Showers falling later in many parts of the kingdom. *Temperature* fallen a little generally; readings over our Islands ranging at 8 a.m. from 61° at Jersey to 44° at Wick and Nairn. *Wind* light or moderate from the North-Westward in our Islands, but South-Westerly over the Netherlands, and South-Easterly in Scandinavia as well as in the south-west of France. Subsequently veering to North on our northern coasts. *Sea* moderate to smooth generally. *Barometer* falling at all but the Scandinavian stations. Areas of high pressure lying respectively over the Bay of Biscay and Spain, and over Northern Europe, with two or three small depressions over the North Sea. Slight rise taking place in our Islands later.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 141 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	55	38	52·3	41·1	46·4	− 5·5	35	3	7	1·59	+0·81	*	*
	Stornoway	58	43	55·0	45·7	50·2	− 1·7	57	0	5	1·65	+0·74	21	23
	Wick	60	41	54·9	43·9	49·1	− 3·7	50	0	6	0·49	−0·11	*	*
	Lairg ℌ	62	38	55·4	42·0	48·4	− 3·7	45	0	6	1·21	+0·46	*	*
	Glencarron ℌ	59	40	53·3	42·9	47·9	− 4·2	41	0	7	1·99	?	? ‡	? ‡
	Fort Augustus ℌ	61	42	56·2	44·3	50·0	− 5·1	56	0	5	0·93	?	*	*
1. SCOTLAND, E.	Nairn	61	43	57·6	46·9	52·0	− 1·6	70	0	6	0·72	+0·09	*	*
	Aberdeen	65	37	58·3	44·7	51·2	− 2·6	64	0	6	0·41	−0·34	28	30
	Braemar ℌ	62	36	54·2	41·2	47·4	− 3·2	41	2	6	0·50	−0·38	16‡	17‡
	Ochtertyre ℌ	66	37	60·7	42·9	51·4	− 2·2	66	0	6	0·89	+0·02	*	*
	Leith	66	39	60·3	47·1	53·4	− 1·8	80	0	5	0·86	+0·27	*	*
	Marchmont ℌ	60	36	56·4	45·9	50·9	− 1·9	62	0	5	0·84	−0·01	24	26
2. ENGLAND, N.E.	Alnwick Castle	63	40	57·4	45·9	51·4	− 2·8	66	0	7	2·14	+1·44	*	*
	Durham	67	36	60·6	44·8	52·3	− 2·8	72	0	6	1·30	+0·70	32	35
	Shields	65	40	58·9	47·1	52·7	− 2·0	75	0	6	2·57	+1·97	*	*
	Scarborough ℳ	64	40	59·6	46·7	52·8	− 3·1	76	0	5	1·41	+0·73	26‡	29‡
	York	65	38	61·4	46·0	52·9	− 3·3	76	0	5	0·94	+0·27	29	32
	Spurn Head	66	48	60·3	50·9	55·4	− 1·0	94	0	6	0·41	?	*	*
3. ENGLAND, E.	Hillington ℳ	68	45	63·0	48·6	55·5	− 1·5	95	0	4	0·36	−0·33	30	33
	Yarmouth	67	48	61·4	51·1	56·0	− 2·3	98	0	5	0·40	−0·30	*	*
	Geldeston	68	45	63·5	48·7	56·7	− 1·4	103	0	6	0·35	−0·25	29	32
	Cambridge	69	36	65·1	47·0	55·6	− 3·3	95	0	4	0·22	−0·34	36	40
	Rothamsted	67	36	63·0	46·7	54·5	− 3·6	88	0	3	0·46	−0·21	*	*
	Ingatestone	66	40	63·0	47·7	55·0	− 3·5	91	0	5	0·57	−0·01	35‡	39‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	66	37	62·3	44·4	52·9	− 4·2	76	0	5	0·21	−0·41	28‡	31‡
	Loughborough	68	34	62·9	46·0	54·0	− 3·1	84	0	4	0·42	−0·27	*	*
	Leicester	69	37	63·2	47·4	54·9	− 2·2	90	0	4	0·50	−0·19	32	36
	Cheadle ℳ	63	40	58·8	45·7	51·9	− 4·2	69	0	4	0·77	−0·07	*	*
	Churchstoke ℳ	65	36	60·8	44·6	52·3	− 4·1	72	0	4	0·46	−0·23	28	31
	Hereford ℳ	69	37	64·0	47·0	55·1	− 2·5	92	0	4	0·20	−0·53	*	*
	Cirencester	67	36	63·0	46·1	54·1	− 3·5	85	0	4	0·25	−0·55	?34	?38
	Oxford	67	49	62·6	48·3	55·1	− 3·0	92	0	5	0·28	−0·39	34	38
5. ENGLAND, S.	London	69	40	64·4	49·4	56·5	− 3·1	102	0	4	0·24	−0·36	32‡	36‡
	Strathfield Turgiss ℳ	68	36	64·9	46·3	55·2	− 3·4	92	0	5	0·19	−0·46	*	*
	Dungeness	66	42	63·6	48·9	55·9	− 3·2	97	0	6	0·62	0·00	*	*
	Hastings (St. Leonard's)	66	45	62·8	50·1	56·2	− 2·6	99	0	4	0·70	+0·02	35	39
	Southampton	67	42	65·3	48·8	56·7	− 1·5	103	0	5	0·40	−0·35	36	40
	Hurst Castle	65	44	63·3	50·9	56·5	−[2·0	102	0	5	0·32	−0·43	*	*
	Stowell ℳ	65	42	61·5	48·8	54·9	− 2·7	90	0	5	0·27	?	31‡	34‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	60	44	56·2	46·5	51·1	− 3·7	64	0	5	2·58	+1·06†	*	*
	Glasgow	60	40	57·3	44·1	50·4	− 4·2	59	0	4	0·79	−0·16	26	28
	Ardrossan	62	43	59·0	47·7	53·1	− 1·4	78	0	6	0·72	−0·19	*	*
	Glenlee	63	35	58·3	44·9	51·3	− 1·8	65	0	5	1·78	?	*	*
	Douglas (Isle of Man)	63	37	59·3	47·1	52·9	− 1·9	76	0	6	0·88	−0·01	36	40
7. ENGLAND, N.W.	Newton Reigny (Penrith)	62	39	57·6	45·2	51·1	− 3·5	64	0	5	0·76	−0·04	28	31
	Barrow-in-Furness	61	?47	58·6	50·3	54·2	− 2·3	85	0	6	0·81	−0·08	*	*
	Stonyhurst	62	39	58·5	45·4	51·6	− 4·3	67	0	5	1·45	+0·28	33	36
	Blackpool ℳ	62	46	59·2	50·6	54·7	− 2·1	89	0	6	0·86	−0·01	29	32
	Manchester	62	39	59·0	46·7	52·6	− 4·1	74	0	5	1·40	+0·45	*	*
	Liverpool Obsy (Bidston)	64	49	60·4	51·6	55·8	− 1·9	97	0	6	0·78	−0·02	*	*
	Llandudno ℳ	64	45	60·1	51·2	55·4	− 2·9	94	0	5	0·46	−0·29	20	22
	Holyhead	62	47	60·3	51·7	55·8	− 2·0	97	0	6	0·37	−0·38	*	*
8. ENGLAND, S.W.	Llandovery	64	?41	61·6	?44·9	?52·9	−?4·0	?76	0	5	1·03	−0·16	*	*
	Pembroke	62	51	59·7	52·4	55·9	+ 0·3	97	0	3	0·57	−0·31	32	36
	Arlington (N. Devon)	63	39	60·4	46·9	53·3	− 3·3	79	0	4	1·24	−0·01	*	*
	Cullompton ℳ	66	37	63·2	47·9	55·2	− 3·2	92	0	5	0·40	−0·47	30	33
	Falmouth	64	48	61·2	50·9	55·8	− 3·0	97	0	4	0·21	−0·94	42	47
	Plymouth	67	46	64·0	52·8	58·1	− 0·4	113	0	5	0·37	−0·58	41	46
	Prawle Point	66	47	62·4	51·9	56·9	+ 0·4	104	0	5	0·44	?	*	*
9. IRELAND, N.	Malin Head	58	48	56·0	50·3	53·0	− 1·2	77	0	6	0·90	?	*	*
	Londonderry	61	44	58·7	46·6	52·4	− 2·6	73	0	6	0·91	+0·04	*	*
	Mullaghmore	60	49	58·6	51·0	54·6	− 1·6	88	0	5	0·91	−0·17	*	*
	Belmullet	60	51	58·0	52·3	55·0	− 0·3	91	0	5	0·46	?	*	*
	Markree Castle	61	39	58·1	45·8	51·7	− 5·4	68	0	6	0·54	−0·22	17	19
	Brookeborough	60	41	57·3	44·6	50·7	− 5·4	61	0	6	0·83	?	*	*
	Armagh	63	43	59·1	45·6	52·0	− 4·0	70	0	4	0·54	−0·17	19	21
	Donaghadee	63	45	60·4	49·0	54·4	− 0·6	87	0	6	0·58	−0·16	*	*
	Edgeworthstown	64	40	59·1	45·3	51·9	− 4·8	69	0	4	0·41§	−0·38§	*	*
10. IRELAND, S.	Dublin	67	43	61·1	49·1	54·8	− 1·5	90	0	6	0·39	−0·30	36	40
	Parsonstown	65	43	60·6	47·6	53·8	− 3·6	83	0	5	0·20	−0·61	22	24
	Kilkenny	74	38	67·6	47·3	57·0	+ 0·2	105	0	4	0·65	−0·11	*	*
	Waterford	66	37	63·9	46·3	54·7	− 2·0	89	0	4	0·23	−0·66	*	*
	Roche's Point	65	44	61·4	50·3	55·6	− 1·6	95	0	4	0·49	−0·48	*	*
	Valencia	62	50	60·7	52·9	56·6	− 0·8	102	0	6	0·70	−0·43	28	31
	Killarney	65	41	60·8	45·3	52·7	− 4·8	75	0	5	0·43	?	*	*
	Foynes	62	45	60·2	49·5	54·6	− 2·6	88	0	4	0·37	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	65	53	62·1	55·1	58·4	− 1·1	115	0	5	0·36	−0·44	*	*
	Jersey (Noirmont)	69	49	66·1	54·6	60·1	− 0·5	127	0	4	0·19	−0·56	36	40

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Ingatestone, Braemar, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

§ The Rainfall and Difference from Mean for the Week should read "··30" and "+ 1·52" respectively.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 37.] *Second Series.* WEEK ENDING MONDAY, 19TH SEPTEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 148.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	61	36	55·3	43·6	49·1	2 below.	50	−16	0	0	1679	+144	547	+ 37
	1. SCOTLAND, EAST	68	33	58·2	43·7	50·5	2 below.	60	−21	0	0	2154	+171	584	+ 41
	2. ENGLAND, N.E.	64	40	56·3	45·0	50·4	4 below.	59	−82	0	0	2290	+167	564	+ 82
	3. ENGLAND, EAST	66	40	60·6	45·7	52·4	4 below.	73	−28	0	0	2445	− 10	675	+168
	4. MIDLAND COUNTIES	66	37	59·3	44·6	51·6	4 below.	67	−40	0	0	2453	+ 20	670	+165
	5. ENGLAND, SOUTH	66	40	61·2	47·5	54·0	3 below.	84	−26	0	0	2597	− 40	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	62	35	58·7	43·4	50·7	3 below.	61	−25	0	0	2119	+ 40	445	+ 47
	7. ENGLAND, N.W.	63	35	57·4	46·4	51·6	4 below.	67	−27	0	0	2264	+ 52	501	+118
	8. ENGLAND, S.W.	67	37	60·1	47·8	53·7	3 below.	82	−23	0	0	2552	+ 55	405	+172
	9. IRELAND NORTH	64	32	59·1	45·8	52·1	2 below.	71	−11	0	0	2381	+220	373	+ 23
	10. IRELAND, SOUTH	69	37	61·9	46·6	53·9	2 below.	83	−13	0	0	2691	+257	336	+ 97
	— CHANNEL ISLANDS	68	46	61·5	53·9	57·5	2 below.	109	− 8	0	0	2749	+ 67	170	+ 77

Rainfall. **Bright Sunshine.**

	DISTRICTS. (See p. 148.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	4	4 less.	161	+ 6	27·8	+ 4·2	13	15	860	−154	24	− 5
	1. SCOTLAND, EAST	4	6	2 less.	123	−11	16·4	− 5·8	20	23	1176	+ 13	34	+ 1
	2. ENGLAND, N.E.	4	8	2 more.	110	−19	12·0	− 7·0	17	20	1182	+121	34	+ 3
	3. ENGLAND, EAST	5	6	1 less.	104	−27	12·0	− 5·5	21	24	1464	+175	43	+ 5
	4. MIDLAND COUNTIES	3	5	3 less.	96	−33	13·0	− 7·1	26	30	1314	+164	38	+ 5
	5. ENGLAND, SOUTH	4	7	0 (average).	96	−27	13·5	− 5·1	28	32	1427	+190	42	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	3	6	3 less.	126	−19	25·9	− 5·0	37	42	1281	+158	37	+ 5
	7. ENGLAND, N.W.	3	6	3 less.	103	−31	16·3	− 7·0	32	37	1327	+203	38	+ 6
	8. ENGLAND, S.W.	4	9	2 less.	100	−41	15·4	−13·4	35	40	1637	+239	48	+ 9
	9. IRELAND, NORTH	2	2	7 less.	126	−35	21·4	− 3·1	33	38	1186	+150	34	+ 4
	10. IRELAND, SOUTH	1	1	8 less.	107	−44	18·4	− 8·7	45	51	1444	+260	42	+ 7
	— CHANNEL ISLANDS	3	2	6 less.	110	−41	13·1	− 8·3	35	40	1777	+197	52	+ 6

General Remarks.

Weather has again been unsettled and rather rainy over Scotland and in nearly all the English districts, but in Ireland the conditions have been finer than of late, and the rainfall very slight.

Temperature has remained below the mean for the season in all districts, the deficit ranging from 2° in Ireland and most parts of Scotland, to 4° over the greater part of England. The highest of the maxima were generally recorded either on the 16th or 17th, when the thermometer rose to between 61° and 68° in Scotland, 64° and 69° in Ireland, and 63° and 67° in England. The lowest of the minima, which were registered on different days in the various parts of the Kingdom, ranged from 32° in "England, S.W." and "Ireland, N.", to 46° in "England, N.E.", "England, E.", and "England, S.", and to 46° in the "Channel Islands".

Rainfall has been more than the mean in "England, N.E.", but less in nearly all other districts.

Bright sunshine shows a decrease in the "Wheat-producing" districts, but an increase in most of the "Grazing" districts. The per-centage of the possible amount of duration ranged from 15° in "Scotland, N.", to 33° in "England, S.", 40° in the "Channel Islands", 42° in "Scotland, W.", and 51° in "Ireland, S."

Depressions observed.—During the earlier part of the period two shallow depressions advanced from the eastward towards our Islands, and by 8 a.m. on the 15th the centre of one lay over the north of England, and that of the other over the north of Scotland. By the 17th these systems had dispersed, while a long narrow band or trough of low pressure stretched from our extreme south-west coasts to the north of Norway. This distribution, however, was of short duration, the barometer rising quickly on the 18th, and the conditions over our Islands becoming anticyclonic. Moderate to fresh breezes from between North and North-West or West prevailed generally over the United Kingdom, but on the 15th and 16th the wind backed to the South-Westward.

A 52169. 350.—9/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

Weather

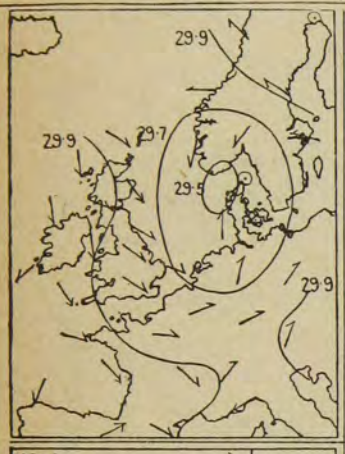
During the 24 hours succeeding

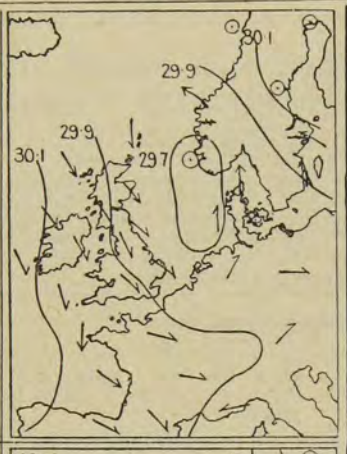
8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, September 13.

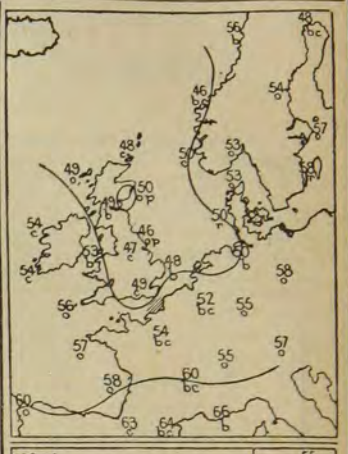
Weather fair generally, but showery on our north-east and extreme north-west coasts. Showers falling later at some of our southern stations.

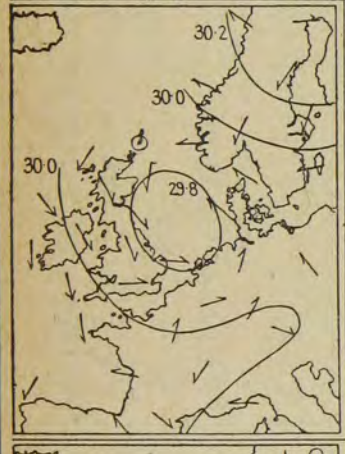
Temperature risen a little in the north of Scotland, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 58° at Jersey to 46° at Nairn and Shields. Maxima below 60° on all but our south-west coasts.

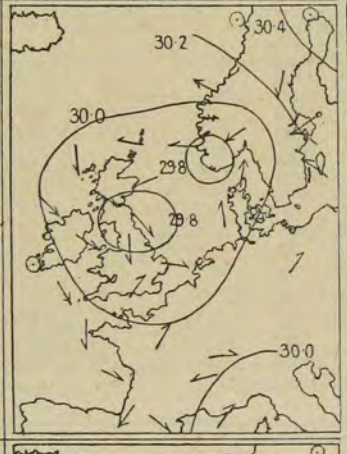
Wind moderate or fresh from North-West or North in our Islands and France, but light South-Westerly in Germany, South-Easterly in Sweden, and North-Easterly in the south of Norway.

Sea rather rough at Cape Gris Nez, but slight or smooth elsewhere.

Barometer rising generally. Pressure high over the Bay of Biscay and west of Ireland, as well as in the north of Sweden, but well-defined depression lying off the north-west of Denmark. Depression subsequently becoming shallower, and barometer continuing to rise generally.







Wednesday, September 14.

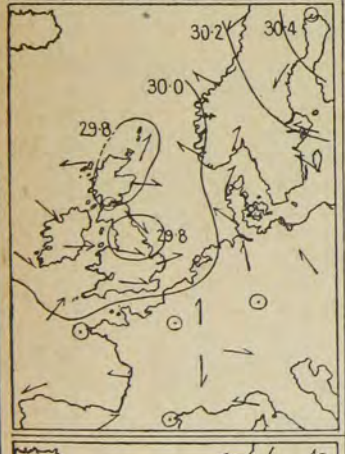
Weather fine over France and the west and south of our Islands, but cloudy elsewhere, with rain over our north-east coasts and North Germany. Rain extending later over the greater part of England and Scotland.

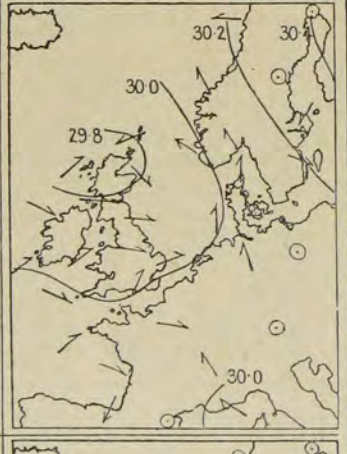
Temperature risen at all but the French and German stations; readings over our Islands ranging at 8 a.m. from 58° at Jersey to 48° at Leith. Maxima below 60°, excepting over our midland and south-eastern counties.

Wind moderate Northerly or North-Westerly on our western and northern coasts, and Westerly in the south-east of England, but Easterly in Scandinavia and the south-west of France. Subsequently veering to East in the east of Scotland.

Sea rather rough at Stornoway, but moderate to smooth elsewhere.

Barometer falling in the more northern parts of our Islands, but rising elsewhere. Pressure highest in the north of Scandinavia, but relatively high off our south-west coasts. Depression of previous day now lying over central part of North Sea, but continuing to grow shallower. New disturbance appearing off South Norway later.





Thursday, September 15.

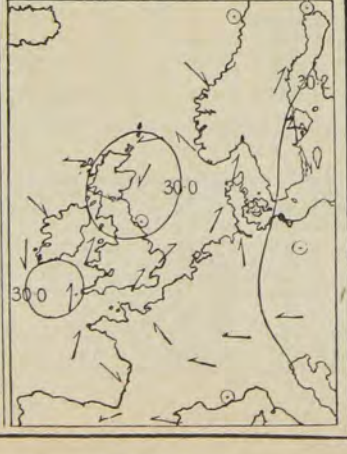
Weather fine at most of the Continental stations, but cloudy elsewhere, with rain in many places. Some improvement taking place over our Islands later.

Temperature risen a little in Norway, the south of England, and the north of France, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 59° at Jersey to 48° at Nairn, Barrow-in-Furness, and York.

Wind fresh Westerly (North-West to South-West) over England and Ireland, but strong South-Easterly on the eastern shores of the North Sea, and variable over Scotland and the greater part of France.

Sea rough at Holyhead, but slight or smooth elsewhere.

Barometer falling in the west and north of our Islands, but rising elsewhere. Pressure highest in the north of Sweden, but high over Germany, with a shallow depression over Scotland and another disturbance over the north of England. Scotch depression subsequently becoming still shallower and other system filling up entirely.



Friday, September 16.

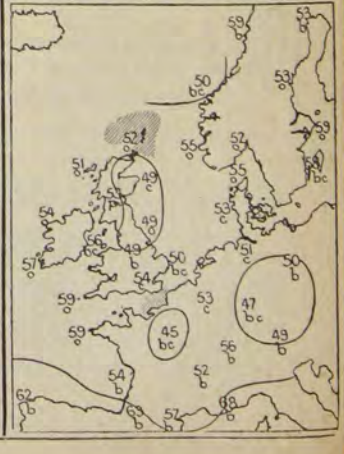
Weather fair generally, but showery in several parts of the United Kingdom.

Temperature risen a little in most places; readings over our Islands ranging at 8 a.m. from 62° at Jersey to 48° at Nairn.

Wind light Westerly and South-Westerly over the greater part of our Islands, but Easterly in the south of Norway and the north of Scotland, and variable in the south of France. Subsequently veering to the Northward in Ireland.

Sea rather rough at Cape Grisnez and Sumburgh Head, but slight or smooth elsewhere.

Barometer rising at all but the Scandinavian and Danish stations. Large anticyclonic band lying over Germany and central France, and another high pressure system over the Gulf of Bothnia, with a shallow depression over Scotland. New disturbance subsequently appearing off our south-west coasts, and barometer falling in extreme south-west and south.



SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

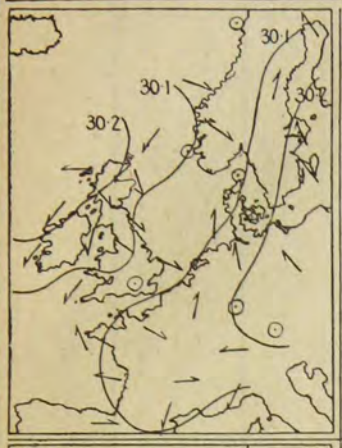
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Saturday, September 17.

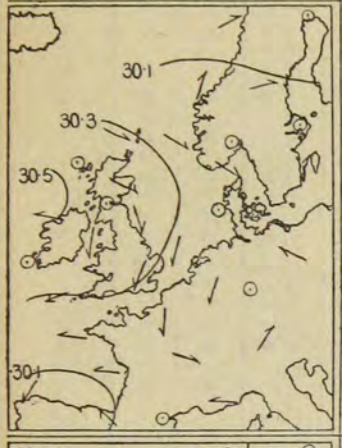
Weather dull, rainy, and foggy in the south and south-east of England, and also in Norway, but fair or fine in most other localities. Showers falling later at a few of our northern stations.

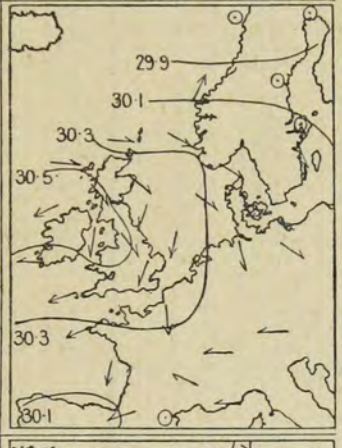
Temperature risen a little in France, but changed irregularly elsewhere; readings over our Islands ranging at 8 a.m. from 63° at Jersey to 42° at Parsonstown.

Wind light from North or North-East in the west and north of our Islands, but Southerly over the Channel, the Netherlands, and Sweden, and variable elsewhere. North-Easterly breeze subsequently appearing in south-east.

Sea moderate at Scilly, but slight or smooth elsewhere.

Barometer rising at all but the Channel stations. Areas of high pressure lying respectively over the extreme north-west of our Islands and over the Baltic and Germany, and long trough of relatively low readings extending north-eastwards from the mouth of the Channel to Norway. High pressure system in north-west subsequently extending south-eastwards.





Sunday, September 18.

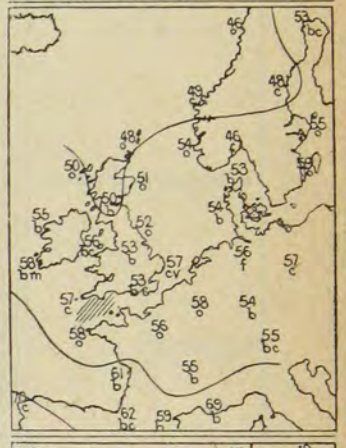
Weather fair generally, but hazy in many parts of Great Britain.

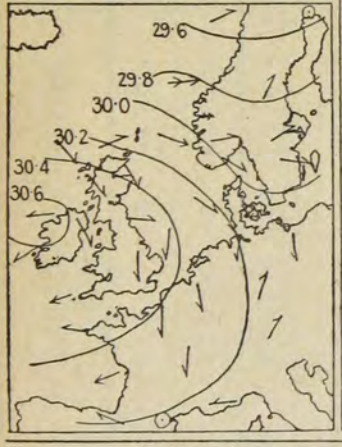
Temperature fallen a little in our Islands and Scandinavia, but risen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 62° at Jersey to 48° in the Shetlands and 46° at Parsonstown.

Wind light Westerly or South-Westerly in the extreme north, but moderate to fresh Northerly or North-Easterly at our southern and the French stations, and variable in Germany.

Sea rough at Prawle Point, but moderate to smooth elsewhere.

Barometer rising at all but the Swedish stations. Well defined anticyclone lying over our Islands, with areas of relatively low pressure over the northern parts of Scandinavia and Spain. Large depression approaching the west of Scotland later, and barometer falling somewhat in extreme north.





Monday, September 19.

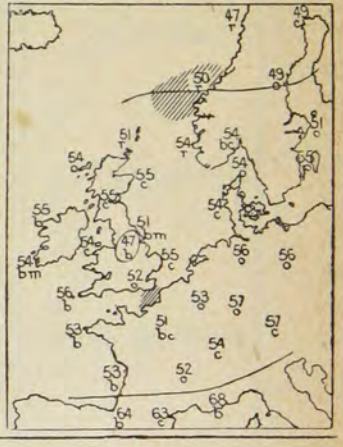
Weather rainy in the Shetlands and west of Norway, and dull in the north generally, but fair or fine elsewhere. Rain falling later at most of the Scandinavian stations.

Temperature risen a little in Norway and Scotland, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 58° at Jersey to 40° at Parsonstown.

Wind fresh or strong from West or North-West in the extreme north, but Northerly or North-Easterly in the south of our Islands and west of France, and variable in Germany and the south of France.

Sea rather rough at Christiansund, but moderate to smooth elsewhere.

Barometer falling in Scandinavia, Denmark, and the north of Scotland, but rising elsewhere. Anticyclone still lying over our Islands, with a large depression over the north of Scandinavia. Depression subsequently moving south-eastwards, and barometer falling a little in nearly all parts of Western Europe.



Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	58	38	54·1	44·7	49·2	− 1·9	50	0	6	0·53	−0·29	*	*
	Stornoway	57	41	54·6	43·7	48·9	− 1·9	48	0	3	0·54	−0·41	13	15
	Wick	61	36	57·0	45·4	50·9	− 0·9	62	0	6	0·49	−0·13	*	*
	Lairg ℌ	60	36	55·1	43·0	48·8	− 2·0	48	0	6	0·44	−0·34	*	*
	Glencarron ℌ	59	40	54·2	43·0	48·3	− 2·7	44	0	5	0·24	?	? ‡	? ‡
	Fort Augustus ℌ	60	37	57·0	42·0	49·1	− 4·0	50	0	3	0·31	?	*	*
1. SCOTLAND, E.	Nairn	61	41	56·9	44·9	50·6	− 2·0	60	0	2	0·23	−0·40	*	*
	Aberdeen	60	41	57·4	45·4	51·1	− 1·6	64	0	4	0·93	+0·18	19	22
	Braemar ℌ	60	33	55·3	40·3	47·4	− 2·2	45	5	5	0·47	−0·41	20‡	23‡
	Ochtertyre ℌ	68	37	62·7	42·1	51·9	− 0·8	69	0	4	0·16	−0·75	*	*
	Leith	65	42	60·0	45·6	52·3	− 1·4	72	0	4	0·78	+0·19	*	*
	Marchmont ℌ	62	40	56·9	43·6	49·9	− 1·6	55	0	4	0·74	−0·11	21	24
2. ENGLAND, N.E.	Alnwick Castle	60	44	54·7	46·1	50·2	− 2·9	57	0	5	1·00	+0·28	*	*
	Durham	62	40	56·7	42·7	49·4	− 4·9	52	0	4	1·34	+0·74	17	20
	Shields	60	42	56·4	45·1	50·5	− 3·2	60	0	4	0·88	+0·28	*	*
	Scarborough ℌ	59	43	55·7	45·4	50·3	− 4·6	58	0	4	0·54	−0·16	19‡	22‡
	York	64	40	58·1	43·0	50·2	− 4·9	57	0	4	0·79	+0·09	?16	?18
	Spurn Head	59	45	56·4	47·4	51·7	− 3·7	68	0	5	0·36	?	*	*
3. ENGLAND, E.	Hillington ℌ	63	40	59·3	44·3	51·4	− 3·9	66	0	4	0·78	+0·07	22	25
	Yarmouth	62	42	57·9	46·4	51·9	− 4·9	69	0	6	0·45	−0·30	*	*
	Geldeston	61	40	60·1	45·7	52·6	− 4·1	74	0	6	0·60	−0·05	23	26
	Cambridge	66	41	61·7	45·1	53·0	− 4·7	77	0	4	0·20	−0·39	18	21
	Rothamsted	63	42	59·2	46·7	52·7	− 3·9	75	0	4	0·85	+0·15	*	*
	Ingatestone	63	41	59·5	46·1	52·5	− 4·8	74	0	5	0·63	+0·03	22‡	25‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	61	40	57·9	43·9	50·6	− 5·1	60	0	4	0·53	−0·12	26‡	30‡
	Loughborough	66	41	61·1	45·6	53·0	− 2·7	77	0	2	0·50	−0·21	*	*
	Leicester	66	44	61·0	46·3	53·3	− 2·3	79	0	3	0·38	−0·32	21	24
	Cheadle ℌ	61	40	56·6	43·1	49·5	− 5·1	53	0	4	0·43	−0·42	*	*
	Churchstoke ℌ	61	37	58·0	42·7	50·0	− 5·1	56	0	3	0·27	−0·45	31	36
	Hereford ℌ	64	41	61·4	44·4	52·5	− 3·3	74	0	2	0·08	−0·67	*	*
	Cirencester	61	38	59·0	44·3	51·3	− 4·9	65	0	2	0·66	−0·16	27	31
	Oxford	63	42	59·7	46·6	52·8	− 3·8	76	0	2	0·73	−0·06	25	29
5. ENGLAND, S.	London	66	43	61·1	47·7	54·1	− 3·8	85	0	3	0·50	−0·10	21‡	24‡
	Strathfield Turgiss ℌ	66	40	61·9	46·0	53·6	− 3·5	81	0	4	0·67	0·00	*	*
	Dungeness	65	42	61·3	48·7	54·7	− 3·1	89	0	4	0·60	−0·08	*	*
	Hastings (St. Leonard's)	64	44	60·7	48·5	54·3	− 3·3	86	0	3	0·42	−0·28	28	32
	Southampton	65	42	62·6	47·5	54·7	− 2·0	89	0	3	0·83	+0·05	34	39
	Hurst Castle	63	43	61·6	47·9	54·4	− 2·9	87	0	3	1·16	+0·38	*	*
	Stowell ℌ	61	40	59·0	46·0	52·2	− 4·1	71	0	5	0·50	?	29‡	33‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	62	39	58·5	44·5	51·2	− 2·5	64	0	4	0·37	−1·34†	*	*
	Glasgow	60	39	59·8	41·8	50·4	− 3·4	60	1	4	0·72	−0·25	23	26
	Ardrossan	60	42	59·0	45·0	51·7	− 1·6	68	0	3	0·97	+0·07	*	*
	Glenlee	62	35	57·4	39·3	47·9	− 4·7	53	8	3	0·45	?	*	*
	Douglas (Isle of Man)	62	39	58·8	46·6	52·4	− 0·9	73	0	1	0·26	−0·64	50	57
7. ENGLAND, N.W.	Newton Reigny (Penrith)	60	35	56·3	41·3	48·4	− 4·9	48	2	5	0·71	−0·10	29	33
	Barrow-in-Furness	61	43	58·0	46·6	52·0	− 3·2	70	0	2	0·56	−0·35	*	*
	Stonyhurst	60	42	56·9	45·4	50·9	− 3·6	62	0	3	0·54	−0·65	30	34
	Blackpool ℌ	60	42	58·6	46·1	52·1	− 3·3	71	0	2	0·86	−0·06	41	47
	Manchester	61	39	57·0	44·3	50·4	− 5·0	59	0	3	0·71	−0·27	*	*
	Liverpool Obsy (Bidston)	60	43	57·9	48·3	52·9	− 3·7	76	0	3	0·97	+0·15	*	*
	Llandudno ℌ	59	45	56·5	48·1	52·1	− 5·2	71	0	3	0·39	−0·39	29	33
	Holyhead	63	49	57·6	51·0	54·1	− 2·7	85	0	3	0·22	−0·57	*	*
8. ENGLAND, S.W.	Llandovery	67	37	61·6	42·7	51·7	− 4·1	68	0	4	0·29	−0·91	*	*
	Pembroke	60	47	58·1	50·7	54·2	− 0·5	85	0	2	0·14	−0·78	42	48
	Arlington (N. Devon)	62	42	58·1	46·0	51·8	− 3·8	69	0	4	1·21	−0·03	*	*
	Cullompton ℌ	62	39	61·4	45·2	52·9	− 4·2	76	0	5	0·79	−0·12	30	34
	Falmouth	63	47	59·5	50·5	54·8	− 3·0	90	0	4	1·30	+0·09	34	39
	Plymouth	63	44	61·8	50·0	55·6	− 2·7	95	0	3	1·41	+0·42	35	40
	Prawle Point	61	45	60·4	49·4	54·6	− 1·0	88	0	3	0·83	?	*	*
9. IRELAND, N.	Malin Head	58	?48	56·0	50·1	52·9	+ 0·1	76	0	3	0·44	?	*	*
	Londonderry	67	43	61·0	46·7	53·5	− 0·1	81	0	2	0·22	−0·67	*	*
	Mullaghmore	62	42	59·4	48·6	53·7	− 1·2	82	0	3	0·19	−0·93	*	*
	Belmullet	61	46	59·1	49·1	53·9	− 0·2	83	0	2	0·20	?	*	*
	Markree Castle	64	32	59·2	41·4	49·9	− 5·1	58	2	2	0·05	−0·70	33	38
	Brookeborough	64	33	59·8	40·8	49·8	− 5·0	60	3	0	—	?	*	*
	Armagh	62	40	59·6	43·7	51·3	− 3·5	65	0	1	0·01	−0·74	33	38
	Donaghadee	62	47	58·4	48·9	53·4	− 0·4	80	0	3	0·21	−0·54	*	*
	Edgeworthstown	61	35	59·0	42·3	50·3	− 5·3	58	0	1	0·02	−0·78	*	*
10. IRELAND, S.	Dublin	64	44	59·3	47·5	53·1	− 1·9	78	0	1	0·01	−0·58	43	49
	Parsonstown	63	37	59·9	43·3	51·2	− 5·2	64	0	1	0·11	−0·70	40	46
	Kilkenny	69	39	66·4	45·9	55·7	0·0	96	0	2	0·25	−0·50	*	*
	Waterford	65	43	62·4	45·5	53·5	− 2·2	81	0	0	—	−0·91	*	*
	Roche's Point	61	48	60·3	49·7	54·8	− 1·0	90	0	1	0·01	−1·00	*	*
	Valencia	65	46	63·0	50·6	56·5	− 0·1	102	0	0	—	−1·13	51	59
	Killarney	66	39	62·3	43·7	52·6	− 4·0	74	0	1	0·01	?	*	*
	Foynes	66	44	61·2	47·1	53·8	− 2·5	83	0	1	0·01	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	61	49	59·4	53·3	56·2	− 2·6	99	0	4	0·40	−0·46	*	*
	Jersey (Noirmont)	68	46	63·6	54·4	58·8	− 0·8	118	0	1	0·01	−0·82	35	40

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, 6, NORTH BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. IV. No. 38.] *Second Series.* WEEK ENDING MONDAY, 26TH SEPTEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid*, £1 1*s.* 2*d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 152.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	62	34	55·6	44·8	50·0	0 (average).	56	− 4	0	− 1	1735	+139	547	+ 37
	1. SCOTLAND, EAST	68	35	59·2	46·8	52·7	1 above.	75	+ 4	0	− 1	2229	+171	584	+ 41
	2. ENGLAND, N.E.	64	38	57·1	45·7	51·1	2 below.	64	−16	0	− 1	2354	+145	564	+ 82
	3. ENGLAND, EAST	65	35	58·9	46·1	52·2	3 below.	71	−18	0	0	2516	− 38	675	+168
	4. MIDLAND COUNTIES	68	33	59·2	44·1	51·3	3 below.	65	−27	0	− 1	2518	+ 12	670	+165
	5. ENGLAND, SOUTH	70	34	60·8	45·8	53·0	3 below.	77	−19	0	0	2674	− 72	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	69	35	59·3	45·7	52·1	0 (average).	71	− 5	0	0	2190	+ 30	445	+ 47
	7. ENGLAND, N.W.	64	35	58·7	47·5	52·8	1 below.	76	− 6	0	0	2340	+ 34	501	+118
	8. ENGLAND, S.W.	71	33	60·3	46·7	53·2	2 below.	78	−18	0	0	2630	+ 27	405	+172
	9. IRELAND, NORTH	67	33	59·3	45·5	52·1	1 below.	71	− 5	0	− 1	2452	+210	373	+ 23
	10. IRELAND, SOUTH	66	37	61·5	45·9	53·3	2 below.	79	− 7	0	− 1	2770	+245	336	+ 97
	— CHANNEL ISLANDS	65	43	61·3	52·7	56·8	1 below.	104	− 4	0	0	2853	+ 54	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 152.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	3	4	5 less.	164	+ 4	28·2	+ 3·7	11	13	871	−164	24	− 5
	1. SCOTLAND, EAST	2	2	6 less.	125	−13	16·6	− 6·4	27	32	1203	+ 23	33	0
	2. ENGLAND, N.E.	1	less than ½	6 more.	111	−22	12·0	− 7·7	10	12	1192	+109	34	+ 3
	3. ENGLAND, EAST	2	1	5 less.	105	−29	12·1	− 6·1	16	19	1480	+162	42	+ 4
	4. MIDLAND COUNTIES	1	1	6 less.	97	−36	13·1	− 7·8	16	19	1330	+154	38	+ 4
	5. ENGLAND, SOUTH	1	3	5 less.	97	−31	13·8	− 5·5	28	34	1455	+190	41	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	2	4	6 less.	128	−31	26·3	− 5·6	20	24	1301	+159	37	+ 5
	7. ENGLAND, N.W.	2	4	5 less.	105	−33	16·7	− 7·5	25	29	1352	+205	38	+ 6
	8. ENGLAND, S.W.	1	3	8 less.	101	−44	15·7	−14·2	35	41	1672	+303	48	+ 9
	9. IRELAND, NORTH	2	5	4 less.	128	−38	21·9	− 3·4	19	23	1205	+147	34	+ 4
	10. IRELAND, SOUTH	2	2	7 less.	109	−46	18·6	− 9·4	33	39	1477	+263	42	+ 8
	— CHANNEL ISLANDS	2	2	7 less.	112	−44	13·3	− 8·9	44	52	1821	+200	52	+ 5

General Remarks.

Weather has been fair and dry in all parts of the Kingdom, although a good deal of cloud has prevailed.

Temperature has been a little above the mean in "Scotland, E." and about equal to its normal value in "Scotland, W.", but in all other districts it has been below, the deficit ranging from 1° to 3°. The highest of the maxima, which were recorded on somewhat irregular dates, ranged from 62° in "Scotland, N." to 70° in "England, S." and 71° in "England, S.W." The lowest of the minima, which were registered in most places either on the 24th or 25th, varied from 33° in the "Midland Counties", "England, S.W.", and "Ireland, N.", to 38° in "England, N.E.", and to 43° in the "Channel Islands".

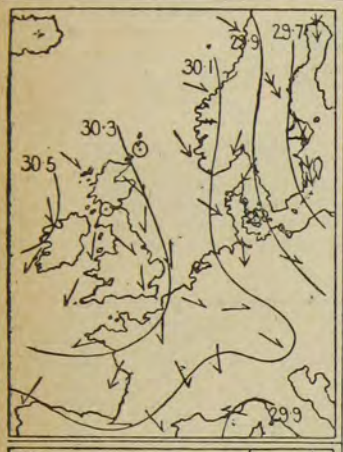
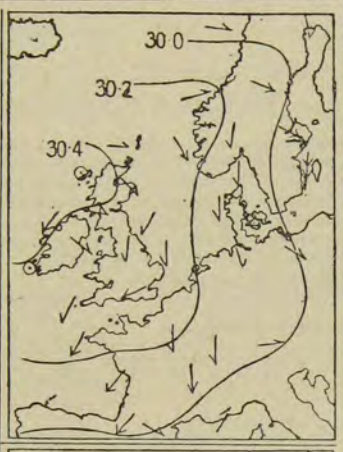
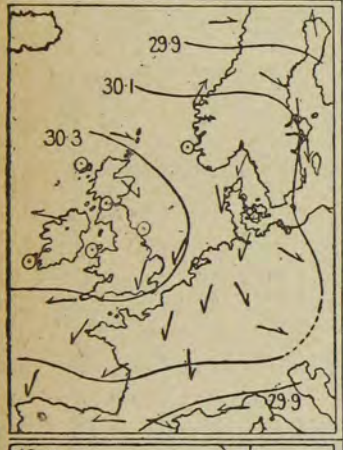
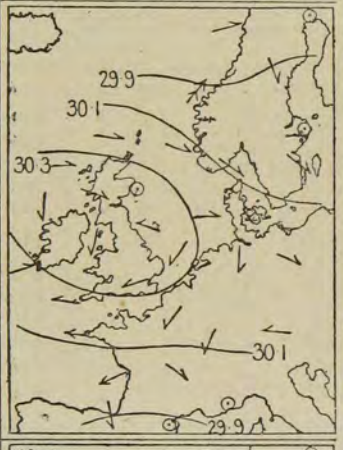
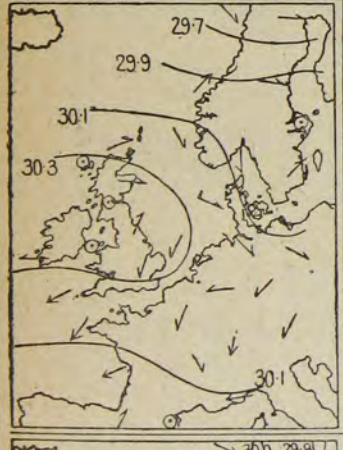
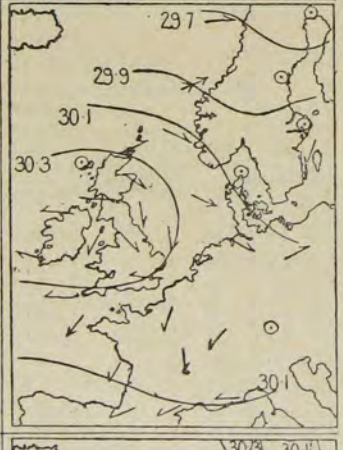
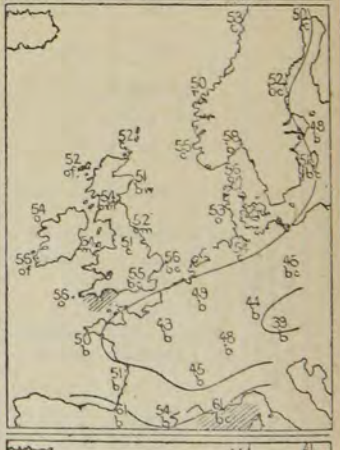
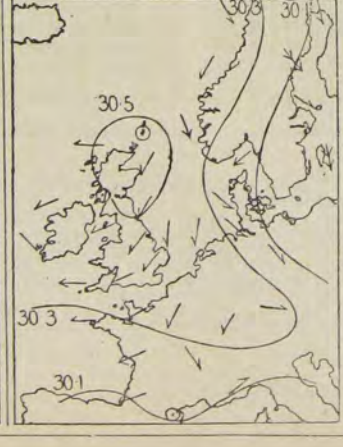
Rainfall has been considerably less than the mean in all districts.

Bright sunshine does not differ materially from that reported last week, the percentage of the possible amount of duration ranging from 12 in "England, N.E." and 13 in "Scotland, N.", to 34 in "England, S.", 39 in "Ireland, S.", 41 in "England, S.W.", and 52 in the "Channel Islands".

Depressions observed.—During nearly the whole of this period the distribution of pressure over our Islands and their immediate neighbourhood was anticyclonic and the only depressions in our area were observed over the north and east of Scandinavia on the 22nd and 23rd, and over the Baltic on the 24th. By the 26th, however, the barometer had fallen very considerably and a new depression reached our northern coasts, while some small subsidiary disturbances appeared over England. North-Westerly to North-Easterly breezes were general over the United Kingdom until the end of the period, when South-Westerly to Westerly winds became prevalent.

A 52202. 350.—9/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather during the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, September 20.** *Weather* fine over England, the Channel, and North Sea; cloudy or overcast on our northern coasts, and also over France. Clouds increasing generally later, but weather remaining fair, except at the extreme northern stations. *Temperature* rather low for time of year; the maxima all below 60° in the north, but rising to between 63° and 66° at the southern stations and to nearly 70° at Southampton and 71° (locally) at Llandovery. *Wind* North-Westerly in the north, Northerly and North-Easterly elsewhere; moderate except in the east, where it blew rather freshly. Falling light and backing to West in the north of Scotland later. *Sea* moderate to smooth. *Barometer* highest (30·5 ins. and upwards) in the west of Ireland, lowest (29·6 ins. and less) over the Baltic; gradients slight in our Islands. Mercury inclined to fall very slightly in some places.	
		**Wednesday, September 21.** *Weather* still fair as a whole, but more cloudy than on the 20th, except in the south, with slight misty showers at a few stations; finer generally later. *Temperature* lower than on 20th; maxima scarcely exceeding 60° even at our most southern stations, and reaching 64° at Valencia only. *Wind* moderate to fresh from North-East in the east and south, very light and variable in the west and north. Becoming more Easterly in the Channel later. *Sea* moderate in the Channel, slight or smooth elsewhere. *Barometer* uniformly high (30·3 ins. to 30·4 ins.) over our Islands; lower over the the Mediterranean and Baltic. Inclined to fall slightly in all districts.	
		**Thursday, September 22.** *Weather* still dry generally with us, showery in Norway, dull over the greater part of England, clear in Scotland, the Channel, and France. *Temperature* recovering somewhat, and reaching 68° to 66° over the south of England during the afternoon, but not reaching 60° on our north-east coast. *Wind* light Northerly in the east, moderate to fresh North-Easterly in the south, but very light Easterly in Ireland, and light Westerly in Scotland. Very little change later. *Sea* moderate in the Channel slight or smooth elsewhere. *Barometer* continuing high (30·3 ins. and more) over the greater part of the United Kingdom, but still falling very slowly. Gradients slight with us, moderate over the Bay of Biscay.	
		**Friday, September 23.** *Weather* still fine and bright in Ireland, France, and the Channel, dull and foggy over Great Britain, and rainy over Scandinavia. Much cirrus in Ireland moving from west. *Temperature* lower than on 22nd, especially in Scotland, where the daily maxima did not exceed 55°; maxima over England 60° to 62°, and in Ireland 63° to 66°; maximum of 69° reported in Isle of Man. *Wind* moderate from North in the east, and from North-East and East in the south, very light from the same quarters in Ireland and Scotland, fresh from North-West in Norway and Denmark. Blowing hard from Northward in Sweden and Denmark later. *Sea* slight or smooth generally, very smooth in the north. *Barometer* rising, readings highest (30·4 ins. and more) over the British Islands, lowest (29·8 ins.) over the Gulf of Bothnia, and (30·0 ins.) over the south of Spain. Well-formed ridge stretching south-eastwards from England to Germany and Austria.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

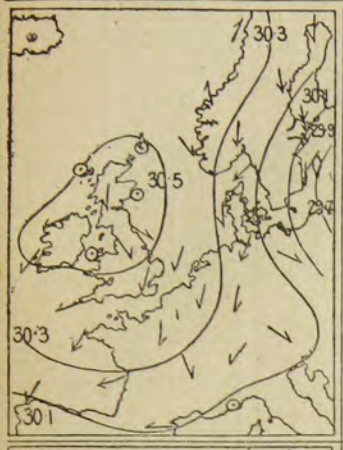
Weather

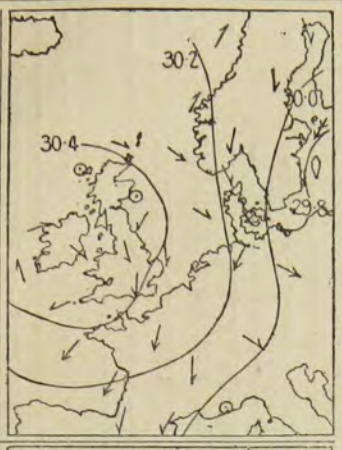
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Saturday, September 24.

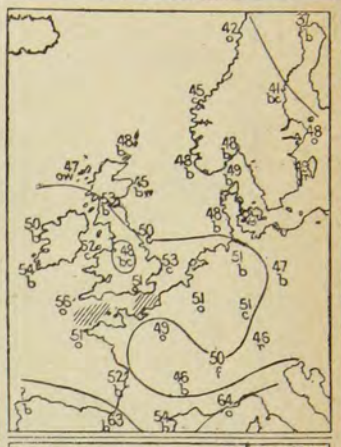
Weather fine generally over the United Kingdom and France, but becoming rainy in Norway and also over the Baltic. Rainfall considerable over the northern half of Norway.

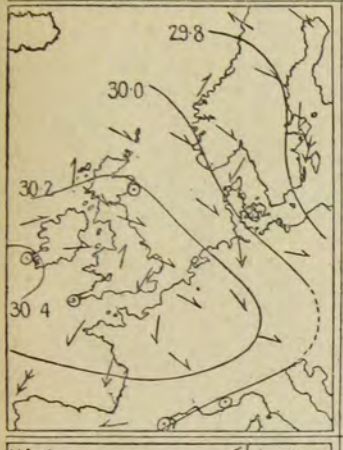
Temperature fallen except in the south of Ireland, most in the north and east; low generally for time of year. Maxima all below 60° over England.

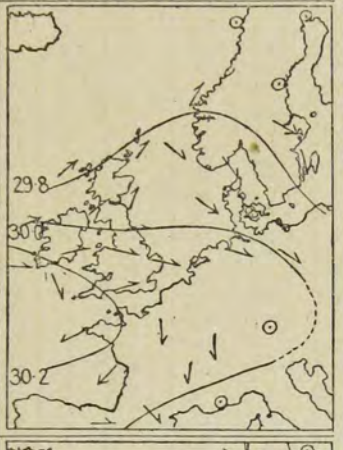
Wind very light and variable in Ireland, Scotland, and the north of England, fresh from North-East at our eastern and southern stations and over the Bay of Biscay. Northerly gales at Stockholm and the Scaw.

Sea rather rough in the Channel, moderate on our eastern coast.

Barometer highest (30·5 ins. and more) over the western and northern parts of the British Islands, lowest in a depression over the Baltic and over the south of Spain. Mercury falling later most in the north and the anticyclone beginning to move southwards.







Sunday, September 25.

Weather remaining showery over Norway, and becoming less settled in Ireland and Scotland also, where rain fell later. Solar halos seen in south-east of England at 8 a.m.; cirrus going from north-east.

Temperature rising in Scotland; low at first over England, but afterwards rising fast at the inland stations, where daily maxima varied from 60° to 68°.

Wind backing to West and South-West over the United Kingdom and to South in the north-west of Norway; freshening a good deal in the North-West later on, but not blowing hard anywhere in our neighbourhood.

Sea smooth or nearly so at first; rough in extreme north-west later.

Barometer falling fast, most in north and north-west. Anticyclone still moving southwards over our western districts, and large but not deep depression subsequently approaching the northern districts from the north-westwards.

Monday, September 26.

Weather becoming dull and showery over the United Kingdom generally, but still mild. Much rain at Liverpool, followed by hail.

Temperature higher at 8 a.m. than on previous morning by 5° to 13° over England; fallen in France. Mild day over the south of England, where maxima ranged from 57° to 62°.

Wind South-Westerly to North-Westerly over our Islands, moderate to rather strong in force; Southerly in Denmark, South-Easterly and Easterly light over the north of Scandinavia. Still North-Easterly over the Bay of Biscay and the Iberian Peninsula. Wind veering over England later.

Sea moderate in the west and south; slight or smooth elsewhere.

Barometer still falling fast everywhere. Large but not deep depression near the Shetlands at 8 a.m., subsequently moving decidedly to the south-westward.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	56	34	53·4	42·6	47·7	− 2·3	40	0	5	0·26	−0·61	*	*
	Stornoway	57	40	55·4	46·6	50·8	+ 1·0	62	0	2	0·41	−0·69	11	13
	Wick	60	36	55·1	44·7	49·7	− 0·6	54	0	3	0·13	−0·59	*	*
	Lairg S	60	41	55·4	45·3	50·1	+ 0·6	57	0	3	0·04	−0·81	*	*
	Glencarron S	62	42	56·2	45·5	50·6	+ 0·9	60	0	3	1·18	?	? ‡	? ‡
	Fort Augustus S	62	34	58·2	44·3	50·9	− 0·8	62	0	2	0·46	?	*	*
1. SCOTLAND, E.	Nairn	62	47	57·4	48·9	53·0	+ 1·7	77	0	2	0·16	−0·47	*	*
	Aberdeen	63	35	58·1	46·6	52·1	+ 0·8	71	0	1	0·11	−0·62	26	31
	Braemar S	?	43	?	46·9	?	?	?	0	4	0·41	−0·51	39‡	46‡
	Ochtertyre S	68	35	63·1	45·0	53·6	+ 2·2	81	0	2	0·36	−0·59	*	*
	Leith S	66	42	59·9	47·9	53·6	+ 1·3	81	0	2	0·06	−0·52	*	*
	Marchmont S	60	42	57·6	45·4	51·2	+ 1·2	64	0	3	0·16	−0·68	15	18
2. ENGLAND, N.E.	Alnwick Castle	58	40	55·9	45·6	50·5	− 1·2	60	0	1	0·05	−0·65	*	*
	Durham	64	38	58·4	43·6	50·6	− 2·4	60	0	0	—	−0·60	9	11
	Shields	59	42	57·0	46·9	51·7	− 0·5	68	0	1	0·03	−0·57	*	*
	Scarborough fm	58	40	55·9	45·6	50·3	− 3·3	58	0	3	0·08	−0·62	9‡	11‡
	York	61	38	59·1	43·9	51·1	− 2·5	64	0	1	0·01	−0·67	12	14
	Spurn Head	58	45	56·3	48·7	52·3	− 1·6	72	0	2	0·02	?	*	*
3. ENGLAND, E.	Hillington fm	62	37	57·3	45·1	50·9	− 2·7	62	0	2	0·10	−0·60	8	10
	Yarmouth	60	46	58·4	49·4	53·7	− 1·6	82	0	2	0·03	−0·69	*	*
	Geldeston	63	44	59·2	48·1	53·4	− 1·8	80	0	2	0·08	−0·57	16	19
	Cambridge	65	35	61·1	43·4	51·8	− 4·3	69	0	2	0·35	−0·23	18	21
	Rothamsted	62	37	58·3	45·1	51·4	− 3·7	66	0	2	0·18	−0·52	*	*
	Ingatestone	62	39	59·1	45·7	52·1	− 3·5	71	0	1	0·11	−0·49	20‡	24‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	61	34	59·1	40·6	49·4	− 5·0	58	4	0	—	−0·65	11‡	13‡
	Loughborough	63	33	59·7	44·1	51·5	− 2·6	67	0	1	0·05	−0·66	*	*
	Leicester	64	35	58·7	45·7	51·9	− 2·2	69	0	1	0·10	−0·60	6	7
	Cheadle fm	62	41	57·9	44·6	50·9	− 1·9	62	0	1	0·05	−0·80	*	*
	Churchstoke fm	64	39	57·9	42·9	50·0	− 3·6	56	0	1	0·04	−0·69	17	20
	Hereford fm	68	34	61·4	44·2	52·4	− 1·7	73	0	1	0·12	−0·60	*	*
	Cirencester	64	34	59·7	45·9	52·5	− 2·1	74	0	1	0·20	−0·61	24	29
	Oxford	65	36	59·6	44·4	51·6	− 3·5	67	0	1	0·16	−0·52	23	28
5. ENGLAND, S.	London	66	37	60·6	46·6	53·3	− 3·2	79	0	1	0·17	−0·43	13‡	15‡
	Strathfield Turgiss fm	67	35	60·8	?40·5	?50·2	−?5·4	?64	?4	3	0·14	−0·62	*	*
	Dungeness	63	47	60·4	49·3	54·6	− 1·7	88	0	1	0·40	−0·29	*	*
	Hastings (St. Leonard's)	68	47	60·0	48·3	53·9	− 2·4	83	0	1	0·53	−0·22	31	37
	Southampton	70	38	63·5	46·7	54·7	− 0·6	89	0	1	0·03	−0·74	32	38
	Hurst Castle	66	38	60·9	45·9	53·0	− 3·1	77	0	1	0·37	−0·41	*	*
	Stowell fm	64	34	59·4	43·6	51·1	− 3·8	64	0	1	0·26	?	37‡	44‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	60	41	57·8	47·2	52·3	− 0·1	72	0	2	0·71	−1·04†	*	*
	Glasgow	61	38	58·2	43·8	50·7	− 1·7	61	0	2	0·35	−0·62	12	14
	Ardrossan	63	44	59·9	48·3	53·8	+ 1·7	83	0	2	0·32	−0·60	*	*
	Glenlee	65	35	60·3	43·7	51·6	− 0·9	67	0	2	0·34	?	*	*
	Douglas (Isle of Man)	69	40	60·1	45·3	52·3	+ 0·2	72	0	2	0·22	−0·71	28	33
7. ENGLAND, N.W.	Newton Reigny (Penrith)	64	35	58·4	41·2	49·4	− 2·2	55	2	2	0·39	−0·42	21	25
	Barrow-in-Furness	62	45	59·3	49·6	54·2	+ 0·2	85	0	1	0·11	−0·80	*	*
	Stonyhurst	61	41	57·6	46·2	51·6	− 1·2	67	0	2	0·67	−0·53	28	33
	Blackpool fm	62	46	58·7	48·6	53·4	− 0·9	80	0	1	0·09	−0·86	27	32
	Manchester	62	42	58·2	46·3	52·0	− 1·8	70	0	1	0·54	−0·44	*	*
	Liverpool Obsy (Bidston)	61	45	58·4	49·4	53·7	− 1·5	82	0	1	0·94	+0·12	*	*
	Llandudno fm	62	46	59·4	48·3	53·6	− 2·5	81	0	2	0·16	−0·64	22	26
	Holyhead	61	48	59·6	50·4	54·8	− 1·0	90	0	2	0·06	−0·77	*	*
8. ENGLAND, S.W.	Llandovery	71	33	62·3	41·7	51·5	− 4·1	68	1	1	0·28	−0·92	*	*
	Pembroke	61	47	58·9	49·4	53·9	+ 0·1	83	0	1	0·11	−0·81	31	37
	Arlington (N. Devon)	63	37	59·4	45·0	51·9	− 2·7	69	0	1	0·57	−0·68	*	*
	Cullompton fm	65	34	61·5	44·9	52·8	− 2·8	76	0	1	0·27	−0·64	37	42
	Falmouth	62	45	59·2	50·3	54·5	− 2·2	88	0	1	0·31	−0·94	38	45
	Plymouth													
	Prawle Point	66	41	60·6	49·1	54·6	+ 0·1	88	0	1	0·19	?	*	*
9. IRELAND, N.	Malin Head	61	46	57·3	51·0	54·5	+ 3·0	88	0	2	0·48	?	*	*
	Londonderry	67	41	61·8	45·2	53·1	+ 0·8	78	0	2	0·90	0·00	*	*
	Mullaghmore	63	44	59·4	49·1	54·0	+ 0·4	84	0	2	0·64	−0·43	*	*
	Belmullet	63	47	59·3	49·4	54·1	+ 0·9	85	0	2	0·47	?	*	*
	Markree Castle	63	33	60·0	38·6	48·8	− 4·8	62	10	2	0·69	−0·09	22	26
	Brookeborough	63	35	59·2	39·8	49·0	− 4·2	58	6	1	0·33	?	*	*
	Armagh	64	37	59·2	43·2	50·8	− 2·5	62	0	2	0·29	−0·44	16	19
	Donaghadee	60	42	58·4	49·1	53·5	+ 0·7	81	0	2	0·10	−0·65	*	*
	Edgeworthstown	62	40	59·0	43·7	51·0	− 3·4	63	0	2	0·28	−0·50	*	*
10. IRELAND, S.	Dublin	62	42	60·0	48·6	54·0	+ 0·2	84	0	2	0·03	−0·57	30	36
	Parsonstown	64	37	59·7	42·6	50·7	− 3·9	61	0	2	0·09	−0·71	22	26
	Kilkenny	65	39	62·3	44·9	53·2	− 1·4	78	0	1	0·14	−0·61	*	*
	Waterford	65	42	63·1	44·6	53·4	− 1·3	80	0	1	0·06	+0·86	*	*
	Roche's Point	63	46	61·0	48·6	54·5	− 0·4	88	0	0	—	−1·01	*	*
	Valencia	66	43	63·6	47·4	55·1	− 0·6	92	0	2	0·23	−0·93	46	55
	Killarney	66	38	62·2	43·2	52·2	− 3·0	71	0	2	0·55	?	*	*
	Foynes	63	44	59·9	47·6	53·5	− 1·6	81	0	2	0·45	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	61	51	60·4	53·4	56·7	− 1·0	103	0	1	0·23	−0·65	*	*
	Jersey (Noirmont)	65	43	62·1	51·9	56·8	− 1·6	104	0	2	0·13	−0·72	44	52

Stations marked fm are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

(OFFICIAL COPY.)

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 39.] *Second Series.* WEEK ENDING MONDAY, 3RD OCTOBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 156.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	61	29	54·0	42·5	48·0	1 below.	42	−10	0	− 2	1777	+125	547	+ 36
	1. SCOTLAND, EAST	66	28	56·4	41·3	48·4	1 below.	48	−14	2	0	2277	+152	536	+ 42
	2. ENGLAND, N.E.	60	30	55·1	43·9	49·1	3 below.	50	−18	0	− 2	2404	+122	564	+ 82
	3. ENGLAND, EAST	61	30	55·8	41·6	48·3	5 below.	46	−30	1	0	2562	− 70	676	+169
	4. MIDLAND COUNTIES	62	30	56·2	40·1	47·8	5 below.	49	−28	5	+ 3	2567	− 41	675	+169
	5. ENGLAND, SOUTH	62	33	57·9	42·7	49·9	5 below.	55	−29	0	− 1	2729	−106	524	+151
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	63	32	56·9	42·4	49·3	2 below.	51	−15	0	− 1	2241	+ 11	445	+ 47
	7. ENGLAND, N.W.	60	32	55·5	44·4	49·7	3 below.	54	−16	0	− 1	2394	+ 11	501	+118
	8. ENGLAND, S.W.	61	28	57·3	43·0	49·6	5 below.	53	−32	0	0	2683	− 7	405	+171
	9. IRELAND NORTH	63	34	55·4	44·4	49·7	2 below.	54	−12	0	− 1	2506	+193	373	+ 23
	10. IRELAND, SOUTH	63	33	56·5	43·7	49·8	4 below.	55	−21	0	− 1	2825	+218	336	+ 97
	— CHANNEL ISLANDS	61	43	57·4	49·3	53·1	4 below.	78	−20	0	0	2931	+ 30	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 156.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	4	2	7 less.	168	+ 3	28·4	+ 3·1	19	24	890	−169	24	− 5
	1. SCOTLAND, EAST	3	4	4 less.	128	−14	17·0	− 6·7	24	30	1227	+ 19	33	0
	2. ENGLAND, N.E.	4	7	0 (average).	115	−22	12·7	− 7·6	19	24	1211	+101	33	+ 2
	3. ENGLAND, EAST	5	6	1 less.	110	−29	12·7	− 6·2	14	17	1494	+140	41	+ 3
	4. MIDLAND COUNTIES	4	3	4 less.	101	−35	13·4	− 8·2	22	27	1352	+145	38	+ 4
	5. ENGLAND, SOUTH	3	2	4 less.	100	−31	14·0	− 5·9	31	38	1486	+188	41	+ 4
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	2	3	6 less.	130	−24	26·6	− 6·2	28	35	1329	+159	37	+ 5
	7. ENGLAND, N.W.	3	4	5 less.	108	−35	17·1	− 8·1	20	24	1372	+196	38	+ 6
	8. ENGLAND, S.W.	3	5	5 less.	104	−45	16·2	−13·8	38	47	1710	+311	48	+ 9
	9. IRELAND, NORTH	3	5	3 less.	131	−40	23·4	− 3·7	16	19	1221	+139	34	+ 4
	10. IRELAND, SOUTH	3	4	5 less.	112	−47	19·0	− 9·9	22	27	1499	+259	42	+ 8
	— CHANNEL ISLANDS	5	8	1 less.	117	−45	14·1	− 9·0	33	41	1854	+195	52	+ 6

General Remarks.

Weather has continued cloudy or dull in nearly all parts of the Kingdom. Falls of rain, in some places accompanied by thunder and lightning, were experienced during the earlier part of the period, but afterwards the conditions became dry, although the sky remained cloudy or overcast.

Temperature has been below the mean in all districts, the deficit ranging from 1° or 2° over Scotland and in the north of Ireland, to as much as 5° over the greater part of England. The highest of the maxima, which were registered on irregular dates, varied from 60° in "England, N.E." and "England, N.W." to 66° in "Scotland, E." The lowest of the minima, which were generally recorded during the early days of the period, ranged from 28° in "Scotland, E." and "England, S.W.", to 35° in "Ireland, N." and to 43° in the "Channel Islands".

Rainfall has equalled the average amount in "England, N.E.", but in all other districts it has been less.

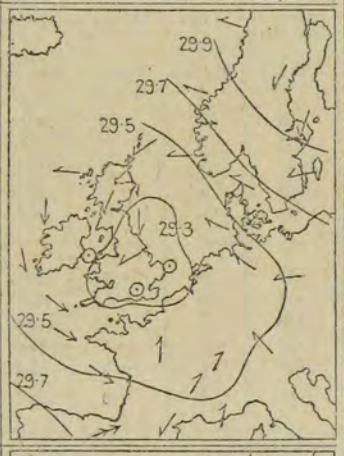
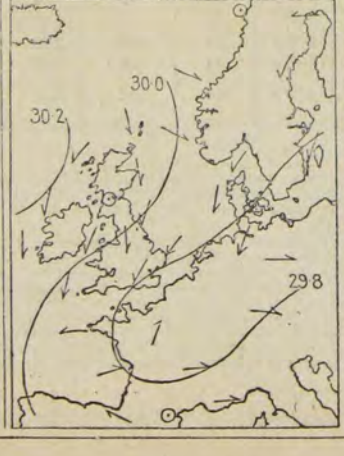
Bright sunshine shows a decrease in most districts, the percentage of the possible amount of duration, which was actually recorded, ranging from 17 in "England, E." and 19 in "Ireland, N.", to 38 in "England, S.", 41 in the "Channel Islands", and to 47 in "England, S.W."

Depressions observed.—During the earlier part of the period the distribution of barometric pressure over our area was cyclonic, and a large irregularly shaped shallow depression travelled slowly southwards and south-westwards over the United Kingdom and finally dispersed over the Continent. As this disappeared the barometer rose briskly in the north and west and the conditions over our Islands became anticyclonic; rather deep depressions then passed in a south-easterly direction over Scandinavia, but did not affect our weather much. At the commencement of the week the winds on our coasts were light or moderate from the Westward, but they subsequently shifted to the Northward (North-West to North-East), and, in some places, increased slightly in force.

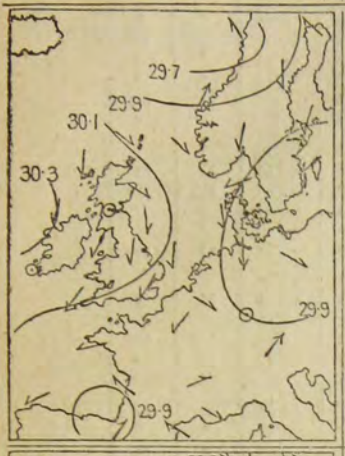
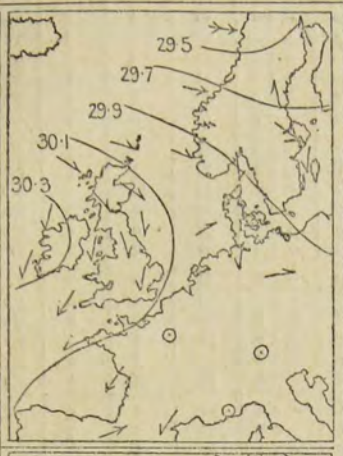
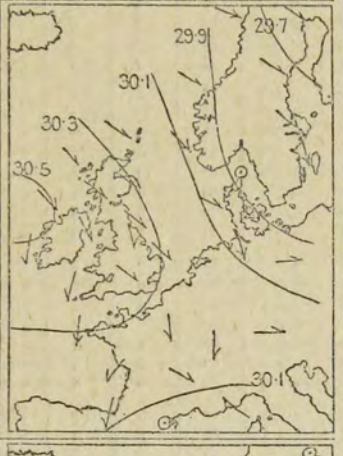
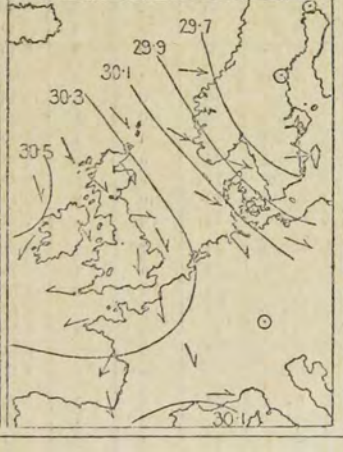
ERRATUM.—The value in last week's Report under the heading of "More or less than the Mean for the Week" in "England, N.E." should read "6 less,"

A 52247. 350.—10/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		Tuesday, September 27. *Weather* changeable and unsettled ; at times clear and at other times showery, except to the eastward of the North Sea, where it remained dry. Thunder and lightning in many places. *Temperature* fallen throughout the United Kingdom ; risen in the west and north of France and in Sweden ; rising in the north later in the day. Daily maxima in our Islands exceeding 60° at the Channel stations only. *Wind* South-Westerly to North-Westerly in Scotland and the east of England ; mainly North-Westerly on our other coasts ; Southerly to Easterly on the eastern shores of the North Sea and Norway ; light to strong in force. *Sea* rough in the extreme west and south-west. *Barometer* falling fast in our Islands and France, rising over north of Sweden. The depression in the north moving south-westwards, and a "hollow" forming over the North Sea. The rise in Sweden spreading to Norway and the north of Scotland later.	
		**Wednesday, September 28.** *Weather*, though still unsettled, remaining showery, except in the extreme south and south-west, with thunder and lightning in many places. *Temperature* fallen fast over the British Isles, especially inland ; risen over Germany and the east of France. Sharp frost on the ground at our inland stations early in morning. *Wind* still North-Westerly in the west and south-west, and Westerly over the Bay of Biscay—variable and light at our northern and eastern stations ; South-Easterly and Easterly in Denmark and Scandinavia. Little change later. *Sea* rough at some western stations and at the Helder ; moderate to smooth elsewhere. *Barometer* still falling except in the north. Complex but shallow depression formed over Scotland and the east and south-east of England, moving southwards subsequently. Barometric rise in north spreading southwards, and slight rise shown at Lisbon.	
		Thursday, September 29. *Weather* still in a very unsettled showery condition, with thunder and lightning in many places. Rain less heavy than of late, except at Spurn Head. *Temperature* risen rapidly in the north, fallen in the south and over France. Very low in the morning over our south-eastern and south-midland counties and in Ireland, but recovering rapidly later. *Wind* rather strong from North in Ireland, moderate from East and North-East in Scotland and Norway, and light from North over England. Westerly gales gales prevalent in the north of Spain, and Southerly breezes over France. The Northerly and Easterly breeze spreading over England later. *Sea* rough in the south-west and extreme west, moderate in the north, smooth, or nearly so, elsewhere. *Barometer* rising decidedly except over France and Spain, depression of Wednesday, and a new one over the Irish Sea, moving southwards.	
		**Friday, September 30.** *Weather* fair as a whole in Scotland and Ireland, but still dull, foggy, and showery over England ; thunderstorms again prevalent in several places. Gradual improvement taking place later. *Temperature* rising in France and over central Ireland, and the home counties of England. *Wind* North-Easterly all over England and Ireland, Northerly in Scotland, light to moderate generally, but a slight gale at Donaghadee. Westerly or South-Westerly in the south of France. *Sea* rather rough both on our western and north-eastern coasts. *Barometer* rising fast. Complex depression over France and Germany, and a new one over the Baltic, but the south-eastern part of an anticyclone appearing in the north-west, and spreading southwards and eastwards.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, October 1.** *Weather* becoming much drier, but dull over England, and remaining fine in Scotland and Ireland; still showery on the Continent. *Temperature* changing fitfully; higher over England than on the previous day; lower over France. Low generally for the time of year. *Wind* Northerly and North-Easterly, moderate in force; backing to North-West in Scotland later. South-Westerly winds, strong to a gale, in Norway, and afterwards veering to North-West. *Sea* moderate to smooth, except off Prawle Point. *Barometer* still rising in our Islands; falling over the northern parts of Scandinavia. Depression appearing in the latter region, and moving eastwards. The Baltic disturbance filling up.	
		**Sunday, October 2.** *Weather* fair generally, but cloudy with us; more or less showery over the Continent. *Temperature* still changing much and variably over the Continent, but very little in our Islands. *Wind* North-Westerly in the north and east of our Islands, North-Easterly in the west and south, and moderate generally. North-Westerly gales reported over Scandinavia, and variable breezes over Southern Europe. *Sea* slight or smooth, except on our east coast. *Barometer* rising slowly. Anticyclone in the west spreading more over us, and the depression in the far north advancing to Russia.	
		**Monday, October 3.** *Weather* still dull, but fair over Ireland and England, except in the extreme north-east and east, where showers fell. Becoming bright in Scotland. *Temperature* rising in the north of the British Isles, still low generally elsewhere; fallen fast in Sweden. *Wind* light to moderate from between North-West and North-East at our own stations and in France. South-Westerly gale again in the west of Norway, veering to North-West later, and moderating in some localities. *Sea* smooth except on the Norwegian coast. *Barometer* high and rising in our Islands, especially in the west. New depression approaching Scandinavia quickly, and passing thence to Russia.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟫⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 153 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	57	39	52·7	44·3	48·3	− 0·6	44	0	5	0·36	−0·56	*	*
	Stornoway	57	36	54·1	44·0	48·8	+ 0·2	48	0	3	0·18	−0·87	19	24
	Wick	55	29	54·6	41·3	47·6	− 1·3	42	2	4	0·14	−0·50	*	*
	Lairg ℌ	55	29	54·1	40·4	46·9	− 1·2	41	4	3	0·12	−0·79	*	*
	Glencarron ℌ	59	32	54·0	42·5	48·0	− 0·6	42	0	3	0·30	?	? ‡	? ‡
	Fort Augustus ℌ	61	35	54·7	42·6	48·4	− 2·0	45	0	3	0·23	?	*	*
1. SCOTLAND, E.	Nairn	59	32	55·1	42·9	48·7	− 1·2	47	0	3	0·45	−0·16	*	*
	Aberdeen	61	30	56·3	41·6	48·6	− 1·2	48	1	3	0·45	−0·26	23	29
	Braemar ℌ	58	28	53·4	37·6	45·1	− 1·7	40	12	2	0·30	−0·62	25‡	31‡
	Ochtertyre ℌ	66	33	60·4	39·1	49·2	− 0·6	63	8	2	0·35	−0·63	*	*
	Leith	64	36	57·6	44·1	50·5	− 0·2	60	0	4	0·36	−0·29	*	*
	Marchmont ℌ	60	31	55·3	42·2	43·4	− 0·2	45	0	3	0·48	−0·32	24	30
2. ENGLAND, N.E.	Alnwick Castle	58	32	53·7	44·0	48·6	− 1·6	46	0	3	0·21	−0·48	*	*
	Durham	60	30	55·0	42·5	48·5	− 3·0	46	0	4	1·29	+0·68	26	33
	Shields	60	35	56·0	43·9	49·7	− 1·3	54	0	5	0·65	−0·04	*	*
	Scarborough ℌ	57	40	54·4	45·6	48·8	− 3·5	48	0	3	0·70	0·00	18‡	22‡
	York	59	32	56·3	41·4	48·5	− 3·7	48	2	4	0·32	−0·33	14	17
	Spurn Head	57	43	55·0	46·0	50·3	− 2·2	58	0	4	0·97	?	*	*
3. ENGLAND, E.	Hillington ℌ	59	30	55·5	39·5	47·1	− 5·2	46	7	6	0·77	+0·08	11	14
	Yarmouth	57	41	54·9	45·7	50·1	− 3·8	57	0	6	1·27	+0·57	*	*
	Geldeston	60	31	56·1	41·6	48·5	− 5·3	47	1	6	0·65	0·00	9	11
	Cambridge	61	32	56·6	40·0	47·9	− 6·6	50	6	4	0·45	−0·13	13	16
	Rothamsted	60	32	55·3	40·6	47·6	− 6·0	45	4	4	0·15	−0·55	*	*
	Ingatestone	60	34	56·2	41·9	48·7	− 4·4	47	0	3	0·39	−0·24	21‡	26‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	59	30	56·4	40·0	47·8	− 4·9	49	16	5	0·21	−0·44	15‡	19‡
	Loughborough	59	31	56·7	37·6	46·7	− 5·9	51	12	4	0·56	−0·14	*	*
	Leicester	60	32	57·1	41·3	48·8	− 3·8	51	2	3	0·51	−0·16	11	14
	Cheadle ℌ	57	33	54·7	40·3	47·2	− 4·2	44	5	3	0·28	−0·57	*	*
	Churchstoke ℌ	56	30	54·3	38·6	46·1	− 6·0	43	10	4	0·45	−0·31	22	27
	Hereford ℌ	62	33	59·2	42·7	50·6	− 2·1	60	0	3	0·25	−0·45	*	*
	Cirencester	57	32	55·4	40·1	47·4	− 5·6	46	5	3	0·20	−0·58	29	36
	Oxford	59	34	56·1	40·0	47·7	− 5·7	48	6	3	0·24	−0·41	31	38
5. ENGLAND, S.	London	61	35	57·4	42·4	49·5	− 5·3	53	0	3	0·15	−0·46	20‡	25‡
	Strathfield Turgiss ℌ	61	33	59·7	38·6	48·7	− 5·4	61	10	2	0·05	−0·60	*	*
	Dungeness	61	37	58·1	45·3	51·4	− 3·4	66	0	3	0·32	−0·38	*	*
	Hastings (St. Leonard's)	60	41	57·2	45·3	51·0	− 3·8	63	0	3	0·26	−0·50	36	44
	Southampton	62	36	60·3	42·3	50·9	− 3·3	62	0	2	0·05	−0·71	34	42
	Hurst Castle	59	40	57·7	44·1	50·5	− 4·4	60	0	3	0·21	−0·55	*	*
	Stowell ℌ	58	35	55·1	40·8	47·6	− 6·0	44	3	4	0·23	?	32‡	40‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	59	37	56·6	44·8	50·4	− 0·8	59	0	1	0·08	−1·68†	*	*
	Glasgow	59	37	56·0	40·7	48·0	− 1·8	47	4	3	0·18	−0·79	23	29
	Ardrossan	60	39	57·3	41·0	50·3	− 0·5	58	0	2	0·20	−0·75	*	*
	Glenlee	63	32	57·7	38·3	47·5	− 3·9	54	10	3	0·23	?	*	*
	Douglas (Isle of Man)	60	35	56·7	44·2	50·2	− 1·3	57	0	3	0·73	−0·22	33	41
7. ENGLAND, N.W.	Newton Reigny (Penrith)	57	32	54·9	40·5	47·4	− 3·0	44	4	2	0·44	−0·37	25	31
	Barrow-in-Furness	60	41	56·1	45·6	50·6	− 2·2	60	0	3	0·24	−0·69	*	*
	Stonyhurst	57	32	54·8	42·3	48·3	− 3·1	44	0	3	0·44	−0·77	19	23
	Blackpool ℌ	58	38	55·6	44·4	49·7	− 3·3	54	0	4	0·80	−0·15	23	28
	Manchester	58	35	54·7	43·5	48·8	− 3·4	48	0	4	0·30	−0·69	*	*
	Liverpool Obsy (Bidston)	59	43	55·4	45·4	50·2	− 3·6	57	0	4	0·20	−0·61	*	*
	Llandudno ℌ	58	39	55·5	45·6	50·3	− 4·5	58	0	3	0·59	−0·26	11	14
	Holyhead	59	44	57·0	48·1	52·3	− 2·5	72	0	4	0·45	−0·45	*	*
8. ENGLAND, S.W.	Llandovery	61	28	58·6	39·4	48·5	− 4·9	56	7	3	0·32	−0·90	*	*
	Pembroke	59	42	56·0	47·3	51·4	− 2·1	66	0	2	0·19	−0·73	40	49
	Arlington (N. Devon)	57	35	54·9	41·6	47·9	− 5·4	43	1	4	1·57	+0·28	*	*
	Cullompton ℌ	59	30	57·4	39·1	47·8	− 6·7	53	8	3	0·33	−0·57	32	40
	Falmouth	58	39	56·4	45·0	49·4	− 6·2	52	0	3	0·93	−0·32	40	49
	Plymouth	61	37	58·5	44·4	51·1	− 4·1	64	0	2	0·26	−0·65	39	48
	Prawle Point	61	38	59·3	43·9	51·2	− 2·5	64	0	3	0·17	?	*	*
9. IRELAND, N.	Malin Head	57	44	54·0	47·9	50·8	+ 0·4	62	0	2	0·29	?	*	*
	Londonderry	63	42	56·1	45·4	50·5	− 0·6	60	0	4	0·30	−0·64	*	*
	Mullaghmore	59	42	55·6	47·4	51·3	− 0·6	65	0	3	0·61	−0·39	*	*
	Belmullet	61	43	55·9	47·0	51·2	− 1·2	64	0	4	1·20	?	*	*
	Markree Castle	61	36	55·6	42·0	48·5	− 3·1	46	0	3	1·01	+0·19	19	23
	Brookeborough	60	34	?54·7	?40·4	?47·3	− 7·1	?44	?4	3	0·33	?	*	*
	Armagh	59	35	55·6	42·3	48·6	− 3·1	46	0	3	0·35	−0·35	12	15
	Donaghadee	59	38	56·7	45·6	50·9	− 0·9	62	0	2	0·08	−0·67	*	*
	Edgeworthstown	60	36	54·6	41·9	48·0	− 4·4	42	0	3	0·39	−0·37	*	*
10. IRELAND, S.	Dublin	57	38	54·8	45·1	49·7	− 2·8	54	0	3	0·22	−0·43	16	20
	Parsonstown	59	36	55·1	40·1	47·2	− 5·4	44	5	3	0·15	−0·62	19	23
	Kilkenny	63	33	57·7	42·4	49·7	− 3·1	54	0	3	0·06	−0·67	*	*
	Waterford	63	37	57·9	43·1	50·1	− 3·3	57	0	1	0·17	−0·75	*	*
	Roche's Point	62	43	57·1	46·1	51·4	− 2·5	66	0	3	0·07	−0·93	*	*
	Valencia	61	44	57·1	46·7	51·7	− 3·1	68	0	3	0·79	−0·41	31	38
	Killarney	60	34	56·1	41·4	48·4	− 5·6	47	2	3	1·67	?	*	*
	Foynes	60	40	56·0	44·8	50·1	− 3·4	57	0	3	0·85	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	59	45	56·4	49·6	52·8	− 4·1	76	0	3	0·83	−0·05	*	*
	Jersey (Noirmont)	61	43	58·4	48·9	53·4	− 3·9	80	0	6	0·82	−0·08	33	41

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 40.] *Second Series.* WEEK ENDING MONDAY, 10TH OCTOBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

DISTRICTS. (See p. 60.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	58	29	49·7	39·9	44·6	3 below.	27	−18	6	+ 1	1804	+104	553	+ 41
1. SCOTLAND, EAST	65	30	53·0	40·0	46·3	2 below.	39	−13	6	+ 1	2315 *	+132	592	+ 47
2. ENGLAND, N.E.	59	34	52·1	43·5	47·5	3 below.	39	−19	0	− 3	2443	+101	564	+ 82
3. ENGLAND, EAST	60	38	54·7	46·6	50·5	2 below.	60	− 3	0	− 2	2622	− 74	676	+168
4. MIDLAND COUNTIES	61	32	53·1	42·7	47·7	3 below.	40	−23	0	− 4	2607	− 63	675	+167
5. ENGLAND, SOUTH	65	40	56·1	46·7	51·3	2 below.	65	− 6	0	− 2	2794	−117	524	+150
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	60	29	52·7	40·9	46·6	3 below.	37	−21	3	0	2278	− 12	448	+ 50
7. ENGLAND, N.W.	60	32	51·9	44·6	48·3	3 below.	44	−16	0	− 2	2438	− 9	501	+118
8. ENGLAND, S.W.	61	27	55·0	45·0	49·8	3 below.	55	−18	0	− 1	2738	− 30	405	+171
9. IRELAND NORTH	60	30	52·7	43·6	48·1	2 below.	43	−13	0	− 3	2549	+175	373	+ 23
10. IRELAND, SOUTH	62	27	55·0	43·7	49·1	3 below.	50	−16	0	− 2	2875	+195	336	+ 97
— CHANNEL ISLANDS	58	45	55·5	50·4	52·9	3 below.	76	−13	0	0	3007	+ 11	170	+ 77

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 160.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	6	10	1 more.	174	+ 4	29·4	+ 3·1	13	17	903	−181	24	− 5
1. SCOTLAND, EAST	4	11	3 more.	132	−14	18·1	− 6·4	23	31	1248 *	+ 13	33	0
2. ENGLAND, N.E.	4	11	5 more.	119	−21	13·8	− 7·2	3	5	1214	+ 77	33	+ 2
3. ENGLAND, EAST	3	5	2 less.	114 *	−31	13·2	− 6·3	2	3	1496	+118	41	+ 3
4. MIDLAND COUNTIES	3	4	3 less.	104	−36	13·8	− 8·5	3	4	1355	+125	37	+ 4
5. ENGLAND, SOUTH		2	5 less.	102	−33	14·2	− 6·4	6	7	1492	+172	41	+ 6
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	3	5	5 less.	133	−25	27·1	− 6·7	17	22	1346	+151	36	+ 4
7. ENGLAND, N.W.	4	9	0 (average).	112	−35	18·0	− 8·1	7	9	1379	+178	33	0
8. ENGLAND, S.W.	2	3	8 less.	106	−47	16·5	−15·6	8	11	1718	+289	47	+ 8
9. IRELAND, NORTH	3	4	5 less.	134	−41	22·8	− 4·1	18	24	1239	+135	33	+ 3
10. IRELAND, SOUTH	1	1	8 less.	113	−50	19·1	−10·6	23	30	1522	+256	41	+ 6
— CHANNEL ISLANDS	4	3	6 less.	121	−44	14·4	− 9·7	5	6	1859	+172	51	+ 5

General Remarks.

Weather has been extremely cloudy in all parts of the Kingdom. Over Ireland and the greater part of England very little rain has fallen, but in the north and east of Scotland and the north-east of England the fall has been rather heavy. At some of our more northern stations showers of hail were experienced at the close of the week.

Temperature has continued below the mean in all districts, the deficit ranging from 2° to 3°. The highest of the maxima, which were recorded on irregular dates, ranged from 58° in "Scotland, N." and the "Channel Islands", to 65° in "Scotland, E." and "England, S." The lowest of the minima, which were registered towards the end of the week, ranged from 27° in "England, S.W." and "Ireland, S.", to 40° in "England, S." and to 45° in the "Channel Islands".

Rainfall has been more than the mean in "Scotland, N.", "Scotland, E.", and "England, N.E.", but less in nearly all other districts.

Bright sunshine has been very deficient in all parts of the Kingdom. Over England the percentage of the possible amount of duration ranged from 3 (in "England, E.") to 11 (in "England, S.W."), and in Ireland and Scotland from 17 to 31. In the "Channel Islands" the percentage of the possible amount was only 6.

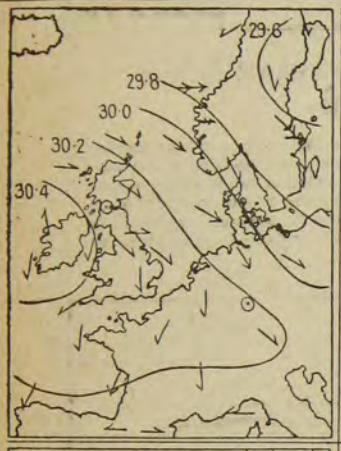
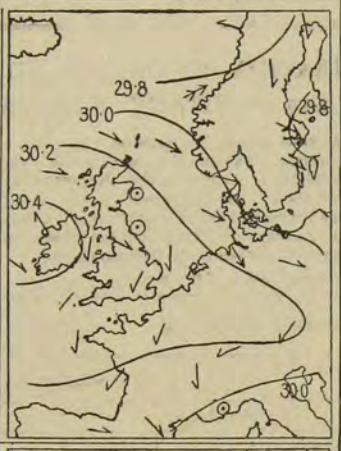
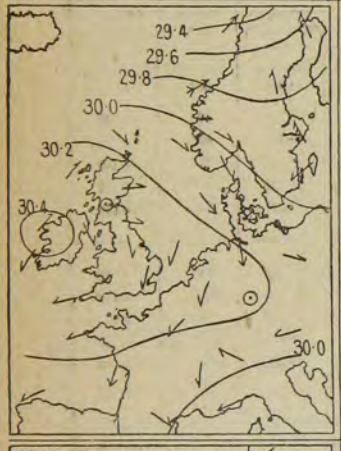
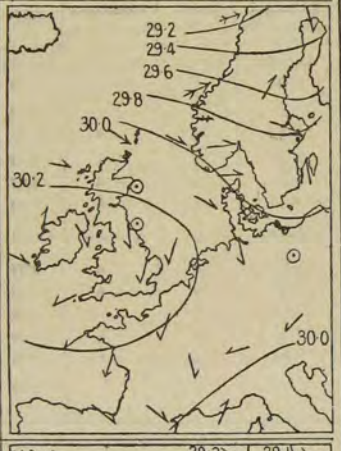
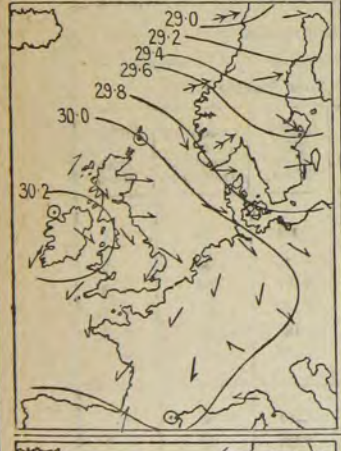
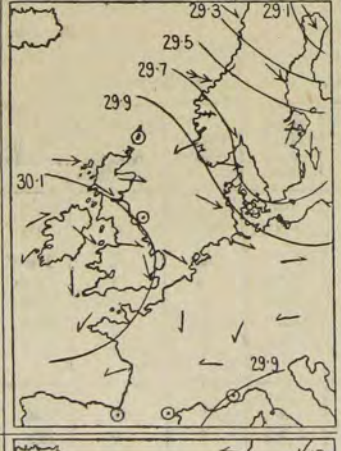
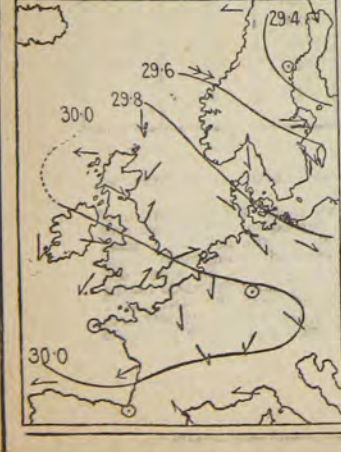
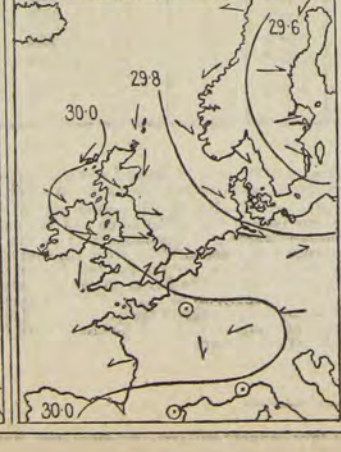
Depressions observed.—During the earlier part of this period the distribution of pressure over our Islands was anticyclonic and the only depressions shown in our area travelled south-eastwards over Scandinavia to Russia. By the 8th, however, a small shallow depression had reached Wales from the west of Scotland, causing much rain at our more northern stations. By the 9th this had partially dispersed, but a new disturbance now appeared over the Bay of Biscay, and advancing north-eastwards (at the same time growing deeper), lay at the close of the period over the south-eastern part of the North Sea. During its passage the winds in our Islands, which had previously been light and somewhat variable, shifted to the Northward (North-East to North-West) and increased considerably in force.

ERRATUM.—In last week's Report the value in "England, S.W." under the heading of—Rainfall, from January 4th, 1887, Difference from Mean should read —"14·8."

* This value has been altered owing to the receipt of further information.

A 52291. 350.—10/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

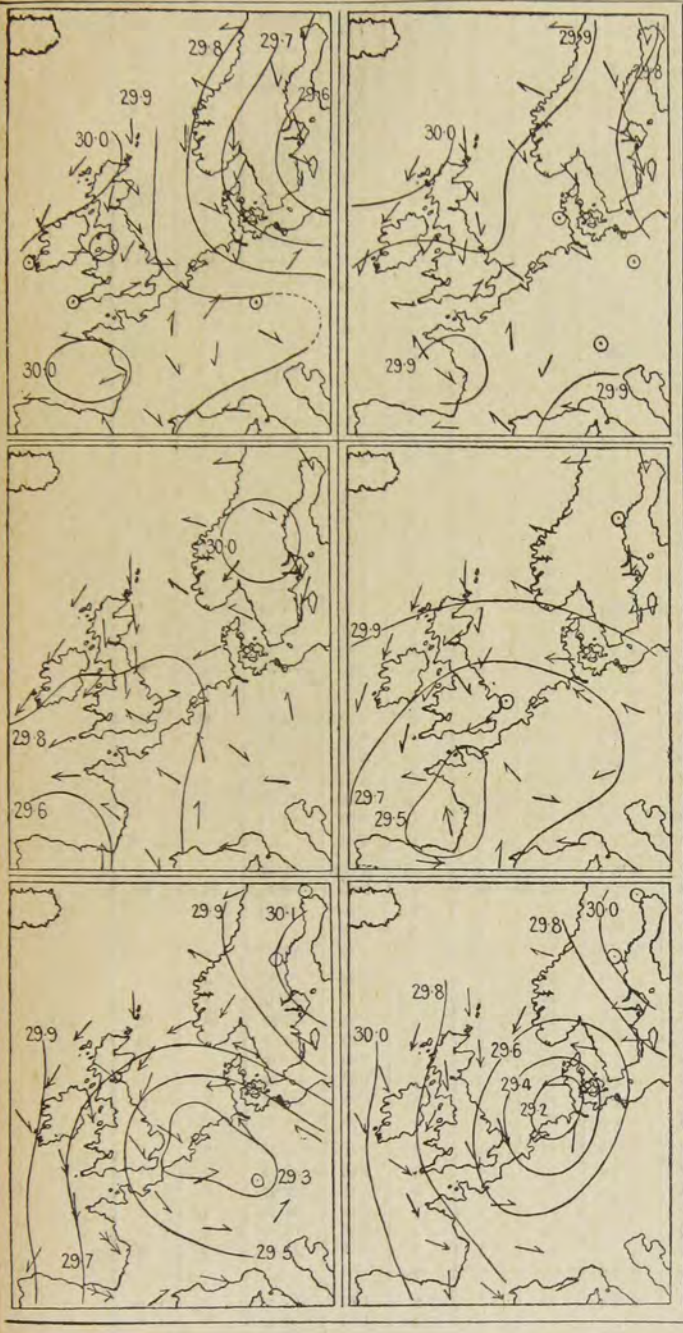
Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, October 4.** *Weather* fine in Scotland, but cloudy or overcast elsewhere, with rain at Christiansund and Perpignan. Showers falling later in the extreme north of Scotland. *Temperature* fallen a little in the west and north of our Islands, but risen slightly elsewhere; readings over our Islands ranging from 56° at Jersey to 45° at Leith. Maxima below 60° generally. *Wind* Westerly on our northern coasts, but Northerly or North-Easterly in the south; light or moderate in force generally. *Sea* rough at Christiansund and rather so off our eastern coasts, but moderate to smooth elsewhere. *Barometer* falling slowly in most places. Anticyclone lying over our western coasts, and large but shallow depression over the Gulf of Bothnia. Fall continuing all day, but no important change taking place in general distribution of pressure.	
		**Wednesday, October 5.** *Weather* fine at some of our north-eastern stations, but cloudy or overcast elsewhere, with rain in the north-west of Norway and also at Nice. Slight rain falling later in the extreme south of England. *Temperature* had fallen slightly at all but the French stations, and readings over our Islands ranged from 55° at Jersey to 40° at York. Maxima again below 60° in all districts excepting the east of Scotland. *Wind* strong to a gale from South-West in the west of Norway, and light from the Westward on our north and east coasts, but North-Easterly at our southern and the French stations. *Sea* rough off the west of Norway, but slight or smooth elsewhere. *Barometer* falling slowly in our Islands and France, but rising on the eastern shores of the North Sea. Large anticyclone lying over our Islands, with a large and deep depression to the northward of Bodö, and a shallow disturbance over the Gulf of Genoa. Fall taking place generally later.	
		**Thursday, October 6.** *Weather* fine in Sweden, Denmark, and some parts of Scotland, but very cloudy elsewhere, with snow at Christiansund, and thunder at Bodö. *Temperature* risen a little in Sweden, Germany, and the north of our Islands, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 54° at Stornoway, Wick, Ardrossan, and Jersey, to 42° at Sumburgh Head. Maxima again below 60° in all districts excepting the east of Scotland. *Wind* strong to a gale from West in Scandinavia, and light from the same quarter in the north of our Islands, but moderate North-Easterly at our southern and the French stations. *Sea* very rough off the west of Norway, but moderate to smooth elsewhere. *Barometer* falling generally, quickly over Scandinavia. Anticyclone still lying over the west of our Islands, with deep depression over the extreme north of Norway. Depression subsequently moving eastwards, but barometer continuing to fall in most places.	
		**Friday, October 7.** *Weather* fair in Ireland and the east of England; as well as in Sweden and Denmark, but dull elsewhere, with rain in the north of Scotland and west of Norway. Rain extending later to all our more northern and eastern stations. *Temperature* fallen several degrees in the north, but little changed elsewhere; readings over our Islands ranging at 8 a.m. from 55° at Jersey to 40° at Sumburgh Head. Maxima below 50° in the north of Scotland. *Wind* continuing North-Easterly at our southern and the French stations, but Westerly over the northern parts of Ireland and England, and Easterly in the north of Scotland, light or moderate in force generally. Subsequently backing to the Westward in the south of England. *Sea* high at Christiansund and rather rough at Stornoway, but moderate to smooth elsewhere. *Barometer* falling at all but the northern Scandinavian stations. Pressure highest over our south-west coasts, and lowest in the north of Sweden, but shallow depression lying over the west of Scotland. Depression subsequently moving slowly southwards, and barometer rising in extreme north.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.



Weather

During the 24 hours succeeding

8 a.m. on the dates given.

Saturday, October 8.

Weather fine in the west and north of our Islands and also on the eastern shores of the North Sea, but cloudy elsewhere, with heavy rain in the north of England. Showers falling later in Scotland and also in the south of England.

Temperature fallen somewhat in the north, but changed irregularly elsewhere; readings over our Islands ranging at 8 a.m. from 55° at Pembroke to 40° at Sumburgh Head, Wick, and Ardrossan. Maxima below 50° at several of our western and northern stations.

Wind moderate to strong from North-East on our northern coasts, but light North-Westerly in the south. Easterly breezes reported over the Bay of Biscay.

Sea rather rough at Christiansund, Stornoway, and Mullaghmore, but moderate to smooth elsewhere.

Barometer rising in the extreme north, but falling elsewhere. Areas of high pressure lying respectively over the north-west of our Islands and the west of France, with lowest readings over the Baltic. Shallow depression of previous day now lying over North Wales. Fall continuing all day, and high pressure system over France generally disappearing.

Sunday, October 9.

Weather dull over England and the west and south of France, with rain in many places, but fair or fine in most other localities. Hail and sleet showers falling in north later.

Temperature fallen generally; readings over our Islands ranging at 8 a.m. from 56° at Dungeness to 36° at Wick and 33° at Parsonstown. Maxima below 50° at most of our western and northern stations.

Wind light or moderate from the North-Eastward over the greater part of the United Kingdom, but fresh from South-East in the west of France. Subsequently increasing to moderate gale—from South-East at Rochefort and from West at Biarritz.

Sea rather rough at Spurn Head and Valencia, but moderate to smooth elsewhere.

Barometer falling at all but the Scandinavian and Danish stations. Pressure highest over Scandinavia, with a large depression over the Bay of Biscay and north of Spain. Depression subsequently moving north-eastwards over the west of France, and barometer falling generally.

Monday, October 10.

Weather rainy over Belgium, Germany, the south-east of England, and the east and south of France, and showery at several of our western and northern stations. Thunder and lightning occurring in some places at night.

Temperature risen in Germany and the north-west of our Islands, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 51° at Jersey to 34° at Parsonstown. Maxima below 50° at all but our south-western stations, with sharp ground frosts over Great Britain at night.

Wind North-Easterly on our northern coasts, and North-Westerly at our southern and the western French stations, but Westerly or South-Westerly in the east of France and South Germany; strong in force in many parts of our Islands and France.

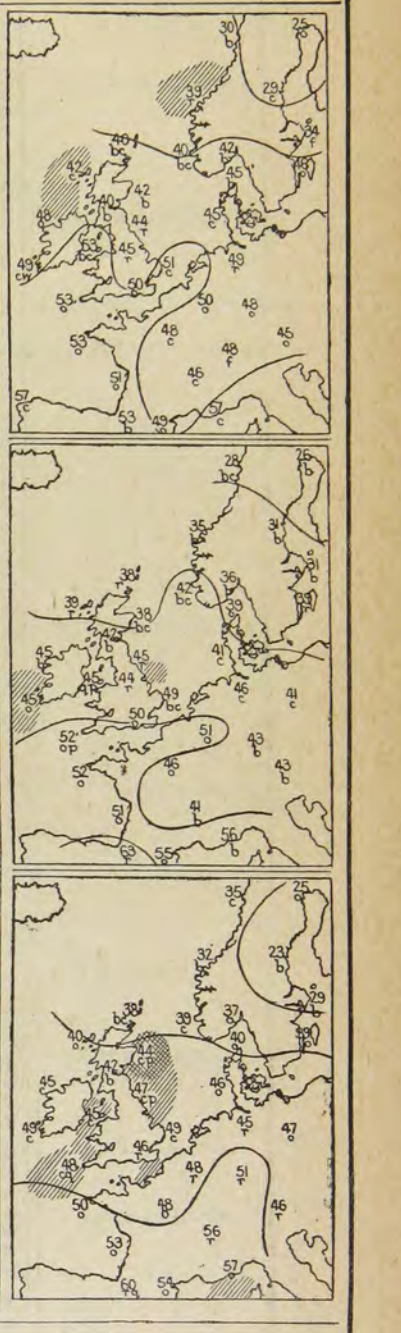
Sea high at Aberdeen and rough on many exposed parts of our coasts.

Barometer rising in the south-west of our Islands and the west of France, as well as in Sweden, but falling elsewhere. Pressure highest in Sweden but relatively high to the westward of our Islands. Large depression of previous day now grown deeper, and lying over the Netherlands. Disturbance subsequently moving north-eastwards, and barometer rising in nearly all parts of our Islands.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	55	34	47·6	39·1	43·2	− 4·7	21	8	7	0·81	−0·16	*	*
	Stornoway	57	34	50·4	41·9	46·0	− 1·4	28	0	6	1·79	+0·70	13	17
	Wick	57	33	48·7	40·4	44·4	− 3·4	24	4	5	0·87	+0·22	*	*
	Lairg	57	29	51·4	38·3	44·7	− 2·4	34	10	4	0·88	−0·07	*	*
	Glencarron	54	29	48·8	38·3	43·4	− 4·1	25	10	7	1·00	?	? ‡	? ‡
	Fort Augustus	58	33	51·2	41·1	46·0	− 3·2	32	3	5	0·71	?	*	*
1. SCOTLAND, E.	Nairn	58	34	51·1	42·1	46·5	− 2·1	32	0	5	2·19	+1·61	*	*
	Aberdeen	62	33	53·7	42·1	47·7	− 0·7	40		5	1·06	+0·38	28	39
	Braemar	59	32	49·5	34·4	41·7	− 3·9	21	30	4	0·55	−0·37	26‡	34‡
	Ochtertyre	65	30	57·0	36·6	46·5	− 2·0	54	15	3	0·31	−0·70	*	*
	Leith	64	39	55·3	42·1	48·5	− 0·8	46	0	3	0·79	+0·29	*	*
	Marchmont	60	37	51·6	42·4	46·9	− 0·2	34	0	4	1·27	+0·51	15	20
2. ENGLAND, N.E.	Alnwick Castle	58	35	51·7	41·7	46·6	− 2·4	33	1	4	0·62	−0·03	*	*
	Durham	59	37	52·0	42·1	46·9	− 2·9	34	0	4	1·31	+0·66	7	9
	Shields	58	41	52·4	42·7	47·4	− 2·5	38	0	4	1·10	+0·52	*	*
	Scarborough	58	43	52·1	45·5	48·7	− 2·0	47	0	4	1·48	+0·76	1‡	1‡
	York	59	34	51·9	41·7	46·7	− 4·2	34	1	4	1·36	+0·72	3	4
	Spurn Head	56	43	52·4	47·3	48·8	− 2·2	48	0	4	0·83	?	*	*
3. ENGLAND, E.	Hillington	57	43	54·2	46·5	50·2	− 0·7	57	0	3	1·12	+0·49	2	3
	Yarmouth	56	46	54·4	48·3	51·3	− 1·3	65	0	4	0·32	−0·36	*	*
	Geldeston	56	44	54·4	47·3	50·8	− 1·9	62	0	2	0·58	−0·05	0	0
	Cambridge	60	44	55·9	46·4	51·0	− 1·7	63	0	4	0·36	−0·19	2	3
	Rothamsted	60	38	54·7	44·8	49·6	− 2·2	53	0	2	0·37	−0·33	*	*
	Ingatestone	59	44	54·4	46·1	50·1	− 2·4	57	0	1	0·22	−0·43	4‡	5‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	58	34	51·9	41·1	46·3	− 5·0	34	3	4	0·87	+0·20	2‡	3‡
	Loughborough	61	38	53·3	44·7	48·9	− 1·9	48	0	3	0·13	−0·55	*	*
	Leicester	60	41	54·0	44·2	49·0	− 1·9	49	0	3	0·19	−0·46	1	1
	Cheadle	59	35	50·2	41·9	45·9	− 4·1	28	0	3	0·37	−0·48	*	*
	Churchstoke	59	34	51·9	40·4	46·0	− 4·8	35	4	4	0·87	+0·09	2	3
	Hereford	61	32	54·0	41·5	47·6	− 3·7	41	1	3	0·44	−0·24	*	*
	Cirencester	59	35	54·7	42·3	48·3	− 3·4	44	0	2	0·22	−0·52	4	5
	Oxford	60	43	54·4	45·6	49·9	− 1·9	55	0	2	0·34	−0·29	7	9
5. ENGLAND, S.	London	63	45	56·4	48·1	52·5	− 0·8	74	0	2	0·48	−0·14	5‡	6‡
	Strathfield Turgiss	62	44	56·3	45·9	51·0	− 1·7	63	0	3	0·15	−0·49	*	*
	Dungeness	61	47	57·0	48·9	52·8	− 0·6	76	0	4	0·24	−0·49	*	*
	Hastings (St. Leonard's)	61	44	56·6	46·1	51·2	− 2·1	64	0	3	0·34	−0·46	8	10
	Southampton	65	44	56·9	46·6	51·6	− 1·2	67	0	1	0·02	−0·73	8	10
	Hurst Castle	63	41	56·7	46·4	51·4	− 2·2	66	0	2	0·03	−0·71	*	*
	Stowell	56	40	53·0	44·9	48·8	− 3·5	48	0	2	0·24	?	1‡	1‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	56	33	51·7	42·0	46·7	− 3·2	33	0	5	0·37†	−1·40	*	*
	Glasgow	60	29	53·7	37·1	45·2	− 4·1	43	14	3	0·49	−0·46	14	18
	Ardrossan	56	33	52·6	42·0	47·1	− 2·6	36	0	2	0·30	−0·66	*	*
	Glenlee	57	34	51·9	40·6	46·1	− 3·9	35	4	3	0·53	?	*	*
	Douglas (Isle of Man)	60	34	53·6	42·9	48·1	− 2·6	43	0	4	0·75	−0·22	20	26
7. ENGLAND, N.W.	Newton Reigny (Penrith)	59	37	50·2	41·4	45·7	− 3·3	28	2	4	0·80	0·00	6	8
	Barrow-in-Furness	59	40	52·0	45·1	48·5	− 3·0	46	0	3	0·78	−0·15	*	*
	Stonyhurst	56	32	50·2	41·0	45·5	− 4·6	29	3	4	0·96	−0·29	10	13
	Blackpool	58	?	51·5	?	?	?	?	?	4	0·69	−0·28	9	12
	Manchester	57	37	51·4	42·7	46·9	− 4·0	34	0	4	0·80	−0·18	*	*
	Liverpool Obsy (Bidston)	58	41	52·4	47·4	49·8	− 2·8	55	0	4	1·06	+0·24	*	*
	Llandudno	59	40	52·9	46·7	49·7	− 3·7	54	0	4	1·28	+0·40	2	3
	Holyhead	60	43	54·4	49·7	52·1	− 1·3	71	0	3	0·95	−0·03	*	*
8. ENGLAND, S.W.	Llandovery	61	27	55·1	38·4	46·5	− 5·9	47	10	4	0·41	−0·84	*	*
	Pembroke	56	44	53·6	48·6	51·0	− 2·2	63	0	2	0·26	−0·67	9	12
	Arlington (N. Devon)	55	40	53·7	44·0	48·7	− 3·6	47	0	4	0·23	−1·07	*	*
	Cullompton	58	34	54·9	42·7	48·6	− 3·4	46	0	1	0·16	−0·74	4	5
	Falmouth	57	41	54·9	47·3	51·0	− 2·4	63	0	2	0·58	−0·67	9	12
	Plymouth	58	42	56·3	47·7	51·9	− 2·2	69	0	1	0·11	−0·77	10	13
	Prawle Point	61	39	56·7	46·0	51·2	− 1·8	64	0	0	—	?	*	*
9. IRELAND, N.	Malin Head	58	42	52·0	47·4	49·7	+ 0·1	54	0	5	0·52	?	*	*
	Londonderry	60	36	54·5	43·4	48·8	− 1·1	48	0	5	0·92	−0·04	*	*
	Mullaghmore	56	36	52·6	45·0	48·7	− 1·8	47	0	3	0·21	−0·73	*	*
	Belmullet	56	39	52·6	46·7	49·6	− 2·0	53	0	4	0·56	?	*	*
	Markree Castle	58	26	53·1	33·6	46·2	− 4·1	39	7	2	0·16	−0·71	19	25
	Brookeborough	55	27	52·1	40·1	45·9	− 4·0	35	5	2	0·29	?	*	*
	Armagh	56	30	52·2	42·2	47·1	− 3·2	36	0	3	0·46	−0·24	17	22
	Donaghadee	58	43	53·1	47·0	50·0	− 1·0	56	0	3	0·21	−0·54	*	*
	Edgeworthstown	56	31	52·0	41·3	46·5	− 3·8	34	2	1	0·03	−0·68	*	*
10. IRELAND, S.	Dublin	58	34	52·6	44·3	48·3	− 3·1	44	0	3	0·25	−0·45	20	26
	Parsonstown	57	31	52·6	43·0	47·7	− 3·4	40	0	0	—	−0·75	23	30
	Kilkenny	60	32	56·7	42·1	49·2	− 2·4	50	0	1	0·02	−0·70	*	*
	Waterford	62	34	56·1	44·1	49·9	− 2·4	55	0	1	0·03	−0·90	*	*
	Roche's Point	60	38	56·1	47·0	51·2	− 1·7	64	0	1	0·12	−0·84	*	*
	Valencia	60	36	56·7	45·3	50·8	− 2·8	62	0	1	0·12	−1·18	27	35
	Killarney	59	27	55·3	40·3	47·6	− 5·0	46	5	2	0·17	?	*	*
	Foynes	57	37	54·0	43·2	48·4	− 3·3	45	0	1	0·14	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	57	45	54·6	50·3	52·4	− 3·6	73	0	3	0·15	−0·73	*	*
	Jersey (Noirmont)	58	47	56·4	50·4	53·3	− 2·9	79	0	4	0·48	−0·49	5	6

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Glencarron, Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

(OFFICIAL COPY.)

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, 6, NORTH BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. IV. No. 41.] *Second Series.* WEEK ENDING MONDAY, 17TH OCTOBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 164.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	56	25	46·8	34·3	40·3	6 below.	13	−24	29	+22	1817	+ 74	582	+ 65
	1. SCOTLAND, EAST	61	26	48·1	34·2	41·0	5 below.	17	−26	31	+23	2332	+101	623	+ 72
	2. ENGLAND, N.E.	57	29	47·6	35·3	41·3	7 below.	16	−30	26	+21	2359 *	− 34 *	590	+105
	3. ENGLAND, EAST	57	27	48·9	33·6	41·1	10 below.	19	−32	33	+29	2641	−110	709	+199
	4. MIDLAND COUNTIES	59	27	49·6	32·2	40·6	9 below.	21	−27	38	+32	2628	− 92	713	+201
	5. ENGLAND, SOUTH	59	22	50·6	32·6	41·3	10 below.	24	−35	37	+34	2818	−157	561	+185
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	58	24	49·0	33·7	41·2	7 below.	20	−27	33	+28	2298	− 43	481	+ 79
	7. ENGLAND, N.W.	55	23	48·4	35·6	41·8	8 below.	18	−31	25	+22	2456	− 44	526	+142
	8. ENGLAND, S.W.	64	23	51·3	34·7	42·8	9 below.	36	−27	20	+19	2774	− 60	425	+191
	9. IRELAND, NORTH	54	31	49·3	39·0	44·0	5 below.	27	−20	8	+ 4	2576	+154	381	+ 29
	10. IRELAND, SOUTH	59	29	50·9	37·5	44·0	7 below.	33	−24	13	+10	2908	+171	349	+109
	— CHANNEL ISLANDS	58	41	53·0	43·9	48·3	7 below.	44	−35	0	0	3051	− 30	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 164.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	6	4 less.	180	+ 5	30·0	+ 2·8	20	28	923	−184	24	− 5
	1. SCOTLAND, EAST	3	4	3 less.	135	−15	18·5	− 6·7	22	31	1270	+ 16	33	0
	2. ENGLAND, N.E.	5	9	2 more.	124	−20	14·7	− 6·9	38	51	1252	+ 95	33	+ 2
	3. ENGLAND, EAST	5	6	0 (average).	118 ‡	−29	13·8	− 6·3	33	45	1529	+132	41	+ 4
	4. MIDLAND COUNTIES	2	1	6 less.	106	−38	13·9	− 9·1	35	47	1390	+140	37	+ 4
	5. ENGLAND, SOUTH	3	1	6 less.	105	−34	14·3	− 7·0	35	46	1527	+184	41	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	2	2	8 less.	135	−27	27·3	− 7·6	28	39	1374	+158	36	+ 4
	7. ENGLAND, N.W.	2	1	8 less.	114	−37	18·1	− 9·0	34	47	1413	+194	37 †	+ 5
	8. ENGLAND, S.W.	4	7	5 less.	110	−47	17·2	−16·0	37	50	1758 ‡	+307	47	+ 8
	9. IRELAND, NORTH	4	4	4 less.	138	−42	23·2	− 4·6	19	26	1258	+133	33	+ 3
	10. IRELAND, SOUTH	1	2	8 less.	114	−53	19·3	−11·3	23	31	1545	+251	41	+ 7
	— CHANNEL ISLANDS	4	8	1 less.	125	−45	15·2	− 9·8	35	47	1894	+177	51	+ 5

General Remarks.

Weather has been rather finer generally than it was last week, but during the earlier part of the period showers of cold rain, sleet, or snow were very prevalent, while over the north-east of England steady rain fell.

Temperature has been much below the mean in all districts, the deficit ranging from 5° to 7° over Ireland and Scotland, and from 7° to 10° over England. The highest of the maxima, which were recorded on the 17th, varied from 54° in "Ireland, N." to 61° in "Scotland, E.", and to 64° in "England, S.W." During the greater part of the week the daily maxima were in most cases below 50°. The lowest of the minima, which were generally registered either on the 12th or 13th, were unusually low for the season. In "England, S." the thermometer fell to 22°, and in "England, S.W." and "England, N.W." to 23°, while in most other districts the lowest readings ranged from 24° (in "Scotland, W.") to 31° in ("Ireland, N.") In the "Channel Islands" the minimum was 41°.

Rainfall has been more than the mean in "England, N.E." and equal to it in "England, E.", but considerably less in all other districts.

Bright sunshine shows a very general increase, the percentage of the possible duration ranging from 26 in "Ireland, N." and 28 in "Scotland, N.", to 47 in the "Midland Counties", "England, N.W.", and the "Channel Islands", to 50 in "England, S.W.", and 51 in "England, N.E."

Depressions observed.—During the first few days of the period the depression which at the close of the previous week lay over the south-eastern part of the North Sea, travelled slowly in a northerly direction and finally (after being joined by a disturbance which had moved north-westwards from Hungary) dispersed in the neighbourhood of the Sound. The next depression travelled southwards from the north of Scandinavia, and by 8 a.m. on the 14th its centre lay over the Skager Rack. This disturbance continued its southerly course and dispersed over Germany on the 15th, and the distribution of pressure over our Islands subsequently became anticyclonic. Moderate to strong Northerly winds prevailed over the United Kingdom during the greater part of the period, but towards its close they fell light, and in Scotland shifted to the Westward.

* For errata, see page 163.

† The corresponding value in last week's Report should be "37."

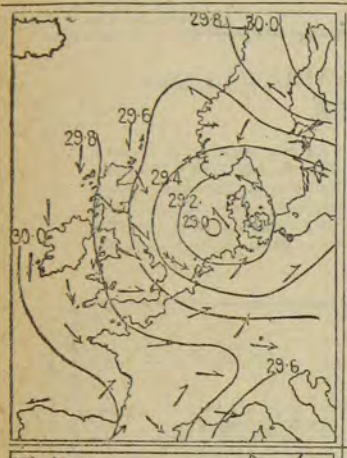
‡ These values have been altered slightly owing to further information.

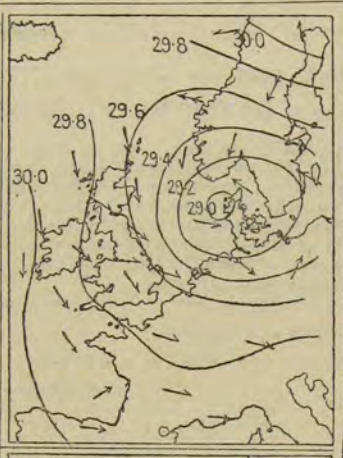
II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

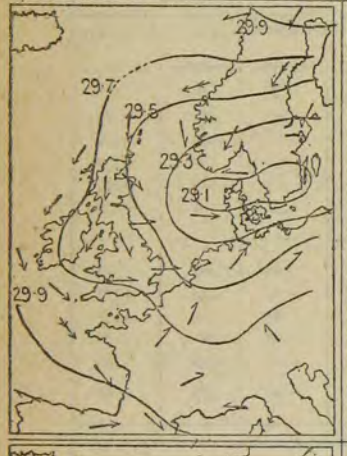
Synoptic Charts.

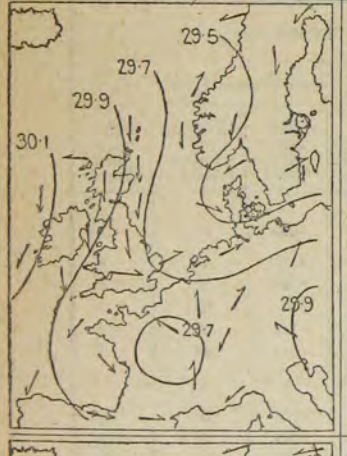
PRESSURE AND WIND.

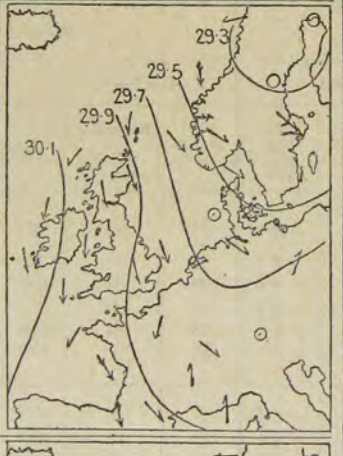
8 a.m.	6 p.m.

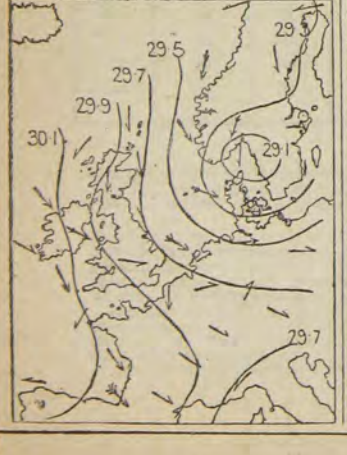












Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Tuesday, October 11.

Weather fine at several of our southern and the French stations, but showers of hail or snow falling in the north of our Islands, and rain in the south of Scandinavia. Snow showers experienced later in many parts of the United Kingdom, with thunder and lightning in places.

Temperature risen several degrees in the north of Sweden, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 48° at Jersey to 36° at Stornoway, Aberdeen, and Loughborough, and 35° in London.

Wind Easterly in Scandinavia, but Northerly or North-Westerly in our Island and Westerly or South-Westerly in France and Germany. Strong to a gale over the North Sea and the adjacent coasts.

Sea rough over the North Sea and rather so at several of our western stations, but moderate to smooth elsewhere.

Barometer falling in Scandinavia, Denmark, and the north of our Islands, but rising elsewhere. Pressure high in Lapland and also to the south-westward of our Islands, but centre of deep depression lying near Fanö. Depression subsequently moving slowly northwards, but subsidiary disturbances advancing over the United Kingdom from the northward.

Wednesday, October 12.

Weather squally and showery in nearly all localities, with snow at some of our northern stations. Solar halos seen in the south-east of England.

Temperature risen a little in the north of our Islands, but fallen elsewhere; reading over the United Kingdom ranging at 8 a.m. from 48° at Valencia and Scilly to 30° at Oxford. Sharp frost over the south-east of England at night.

Wind strong from North-East in Scandinavia and also in the extreme north-west of our Islands, but North-Westerly or Westerly elsewhere.

Sea rough or rather so on nearly all the more exposed parts of our coasts.

Barometer falling at all but the German stations. Areas of high pressure lying respectively over the north of Sweden and the north-west of Spain, but elongated depression containing two minima shown over the north of Denmark and the south of Sweden. Rise taking place generally later, and depressions gradually dispersing.

Thursday, October 13.

Weather fine in the west and extreme north of our Islands, as well as in South Germany, but cloudy elsewhere, with cold showers in many places, and snow in Sweden.

Temperature risen several degrees in the northern and eastern parts of Great Britain, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 49° at Valencia to 30° at Parsonstown and Dungeness.

Wind strong from the Northward over our Islands, Scandinavia, and the west of France, but Westerly or South-Westerly in Germany, and South-Easterly in the east of France.

Sea rough over the North Sea, and also on the west coasts of our Islands and France, but moderate to smooth elsewhere.

Barometer falling briskly in Scandinavia and slightly in France, but rising elsewhere. Depression of previous day breaking up, but shallow disturbance lying over France. New and deeper depression appearing later over the north of Scandinavia, and barometer falling slightly on our northern coasts.

Friday, October 14.

Weather cloudy generally, with snow showers at many of our northern stations, and rain over the southern parts of the North Sea. Squalls of hail or cold rain falling generally later, with thunder and lightning in the east of England.

Temperature risen in the west and south of our Islands, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 50° at Valencia, Scilly, and Jersey, to 37° at Sumburgh Head and Wick. Maxima below 45° at several of our northern stations.

Wind strong Northerly over the greater part of our Islands and France, with moderate gales on some parts of our northern coasts, but Westerly over Germany, and North-Easterly in the south of Norway. Fresh to strong gale experienced later in east of England.

Sea rough on our east coasts and high at Holyhead.

Barometer falling at all our more northern and eastern stations, but rising in the south-west. Pressure highest off our west coasts, with centre of deep depression near the Skager Rack. Depression subsequently moving southwards, and barometer rising again in north and north-east.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

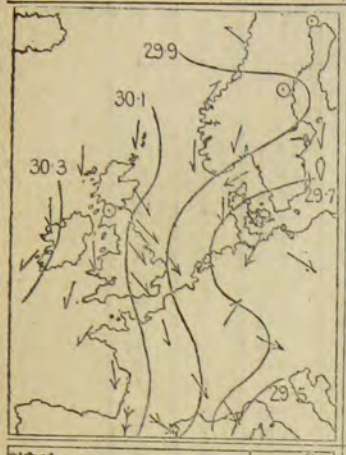
Weather

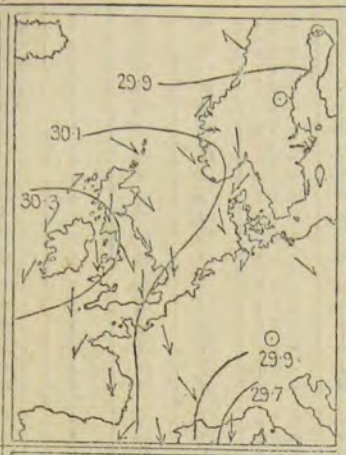
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Saturday, October 15.

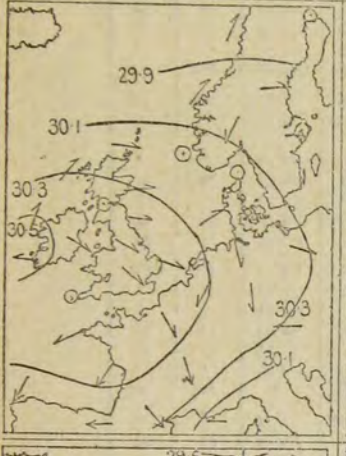
Weather conttnuing showery at our eastern and many of the Continental stations, but improving in west and north.

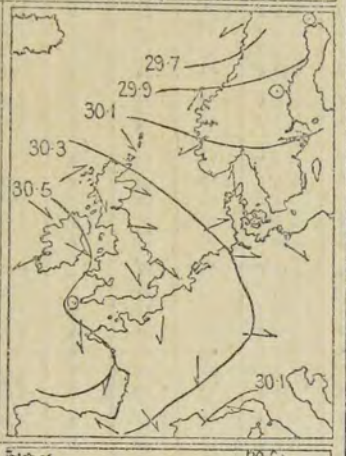
Temperature fallen generally; readings over our Islands ranging at 8 a.m. from 49° at Scilly to 33° at Ardrossan. Sharp frost occurring over central England at night.

Wind chiefly Northerly (North-West to North-East): strong in force over France, the Netherlands, and the east of England, but light or moderate on our northern and western coasts. Subsequently backing to West or South-West in the north of Scotland.

Sea rough in the south-east and east, but moderate to smooth elsewhere.

Barometer rising at all but the southern French stations. Depression of previous day now filling up over North Germany, but new disturbance shown over the Gulf of Genoa. Anticyclonic system appearing over our western coasts and extending slowly eastwards.





Sunday, October 16.

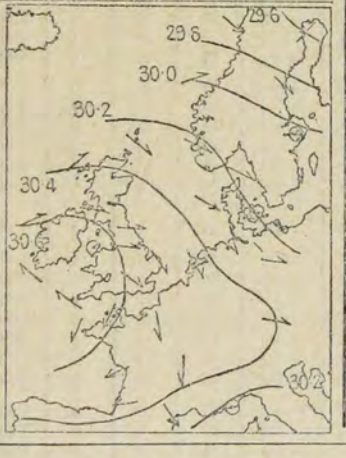
Weather fair generally but foggy or misty over central England. Slight rain falling later at some of our northern and north-western stations.

Temperature fallen over England, Germany, and France, but risen elsewhere; readings over our Islands ranging at 8 a.m. from 51° at Scilly and Jersey to 28° at Loughborough.

Wind light from South-West and West on our northern coasts, but North-Westerly over the North Sea and North-Easterly at our southern and the French stations; strong in force over the Bay of Biscay.

Sea rather rough at Christiansund and Yarmouth, as well as at Corunna and Lisbon, but moderate to smooth elsewhere.

Barometer rising generally. Large anticyclone lying over our western coasts, with relatively low pressures over the north of Norway and the south-east of France. Fall taking place later in the north of Scandinavia.



Monday, October 17.

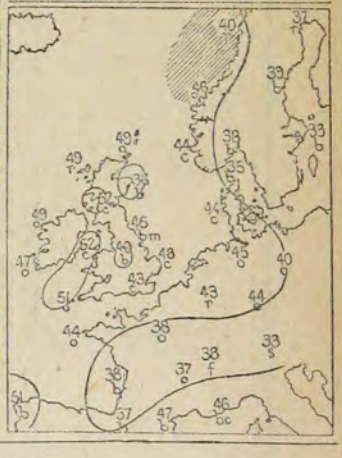
Weather fair generally, but dull in places, with rain in the north of Scandinavia, and also at Stornoway. Rain falling in the Shetlands later.

Temperature risen a few degrees generally; readings over our Islands ranging at 8 a.m from 52° at Ardrossan and Holyhead to 34° at Loughborough.

Wind Westerly in the north but North-Westerly over the North Sea, and Northerly or North-Easterly at our southern and the French stations; light or moderate in force in most places.

Sea rather rough off the west of Norway, but slight or smooth elsewhere.

Barometer rising at all but the northern Scandinavian stations. Well-defined anticyclone lying over our western coasts, with a large depression over the extreme north of Norway. Depression subsequently moving eastwards, but slight fall of barometer taking place on our northern coasts.



Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

ERRATA.—The figures published in the Summary as the "Accumulated Temperature above 42° from Jan. 4, 1887," and the "Difference from Mean," in "England, N.E." during the past ten weeks have been erroneous. The following are the correct values:—

	Accumulated Temperature Above 42°. From Jan. 4, 1887.	Difference from Mean.		Accumulated Temperature Above 42°. From Jan. 4, 1887.	Difference from Mean.
Week ending August 8	1632	+ 146	Week ending, September 12	2131	+ 101
" " 15	1716	+ 114	" " 19	2190	+ 67
" " 22	1804	+ 83	" " 26	2254	+ 45
" " 29	1939	+ 111	" October 3	2304	+ 22
" September 5	2055	+ 127	" " 10	2343	+ 1

III.—DATA from which the SUMMARY on page 161 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	51	31	45·7	35·9	40·7	− 6·2	10	23	7	0·50	−0·48	*	*
	Stornoway	53	31	46·6	34·4	40·3	− 6·1	13	28	7	0·74	−0·37	20	28
	Wick	55	30	46·9	34·9	40·7	− 5·7	14	27	6	0·30	−0·35	*	*
	Lairg ꝺ	56	25	45·9	32·7	39·1	− 6·5	11	34	5	0·85	−0·10	*	*
	Glencarron ꝺ	54	25	46·4	33·9	40·0	− 6·1	12	30	7	0·91	?	*	*
	Fort Augustus ꝺ	55	27	49·0	33·8	41·2	− 6·5	20	32	5	0·10	?	*	*
1. SCOTLAND, E.	Nairn	58	32	47·3	36·6	41·8	− 5·5	15	22	3	0·13	−0·41	*	*
	Aberdeen	57	33	43·0	35·0	41·3	− 5·6	17	27	4	1·01	+0·36	31	43
	Braemar ꝺ	52	26	43·5	39·1	36·6	− 7·4	4	41	4	0·86	−0·04	8‡	11‡
	Ochtertyre ꝺ	61	28	51·3	35·1	43·0	− 3·8	36	19	1	0·02	−0·99	*	*
	Leith	57	30	51·9	35·3	43·4	− 4·5	38	19	2	0·02	−0·43	*	*
	Marchmont ꝺ	56	29	46·7	32·9	39·6	− 5·7	13	34	4	0·37	−0·38	27	38
2. ENGLAND, N.E.	Alnwick Castle	52	31	45·6	35·9	40·6	− 7·0	10	23	5	1·23	+0·70	*	*
	Durham	57	29	47·8	33·1	40·2	− 7·8	16	33	4	0·71	+0·04	31	42
	Shields	55	30	47·9	32·7	40·1	− 8·3	17	35	5	1·71	+1·14	*	*
	Scarborough ℳ	52	32	47·7	38·1	42·8	− 5·7	22	11	5	0·47	−0·24	40‡	54‡
	York	57	30	48·6	34·1	41·1	− 8·5	18	31	5	0·42	−0·18	43	58
	Spurn Head	53	33	47·9	37·9	42·8	− 6·6	23	11	5	0·53	?	*	*
3. ENGLAND, E.	Hillington ℳ	55	27	49·1	33·4	41·0	− 8·6	20	33	4	0·92	+0·32	33	45
	Yarmouth	52	30	47·1	35·3	41·0	− 9·9	14	26	6	1·26	+0·58	*	*
	Geldeston	55	29	49·6	34·0	41·6	− 9·4	21	32	4	0·54	−0·07	29	39
	Cambridge	57	29	51·0	33·1	41·8	− 9·0	25	36	4	0·26	−0·27	39	53
	Rothamsted	54	27	48·3	32·4	40·1	− 9·9	18	36	5	0·16	−0·54	*	*
	Ingatestone	53	29	48·4	33·6	40·8	−10·0	18	32	4	0·39	−0·26	31‡	42‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	57	28	48·9	32·9	40·7	− 9·1	19	35	2	0·06	−0·62	34‡	46‡
	Loughborough	59	28	51·1	31·6	41·1	− 8·2	25	41	3	0·05	−0·63	*	*
	Leicester													
	Cheadle ℳ	54	27	47·8	31·9	39·6	− 8·9	16	38	2	0·13	−0·72	*	*
	Churchstoke ℳ	58	27	48·2	31·3	39·5	− 9·7	17	40	3	0·21	−0·60	30	41
	Hereford ℳ	59	27	51·9	32·7	42·0	− 7·8	28	26	1	0·01	−0·66	*	*
	Cirencester	55	27	50·0	32·9	41·2	− 8·7	22	36	2	0·05	−0·67	38	51
	Oxford	55	29	49·3	31·9	40·3	−10·0	20	38	1	0·10	−0·51	37	50
5. ENGLAND, S.	London	55	27	49·7	32·4	40·8	−10·7	22	37	4	0·11	−0·50	28‡	37‡
	Strathfield Turgiss ℳ	57	22	51·1	30·3	40·4	−10·7	25	45	2	0·07	−0·55	*	*
	Dungeness	53	27	49·9	31·3	40·3	−11·5	22	41	3	0·12	−0·63	*	*
	Hastings (St. Leonard's)	53	30	49·6	34·9	42·0	− 9·8	21	20	4	0·16	−0·66	41	55
	Southampton	59	29	53·3	33·8	43·3	− 8·4	44	23	0	—	−0·75	35	47
	Hurst Castle	56	30	51·4	34·0	42·4	− 9·7	36	22	2	0·04	−0·70	*	*
	Stowell ℳ	55	28	49·3	31·7	40·2	−10·4	20	39	3	0·20	?	34‡	45‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	58	31	48·5	35·9	42·0	− 6·6	18	17	5	0·34†	−1·43	*	*
	Glasgow	54	27	48·6	32·0	40·1	− 7·2	18	38	1	0·02	−0·92	22	31
	Ardrossan	55	29	50·3	36·0	42·9	− 5·5	32	17	1	0·01	−0·96	*	*
	Glenlee	55	24	47·7	29·2	38·2	−10·1	16	47	1	0·01	?	*	*
	Douglas (Isle of Man)	52	30	50·1	35·5	42·6	− 7·3	32	18	3	0·43	−0·55	34	46
7. ENGLAND, N.W.	Newton Reigny (Penrith)	53	23	46·0	31·0	38·3	− 9·3	11	40	2	0·07	−0·73	28	38
	Barrow-in-Furness	53	32	49·1	36·7	42·7	− 7·4	27	15	1	0·01	−0·93	*	*
	Stonyhurst	53	29	47·1	33·6	40·2	− 8·5	14	32	1	0·02	−1·23	42	57
	Blackpool ℳ	53	30	48·9	35·1	41·8	− 9·0	19	28	3	0·14	−0·83	33	45
	Manchester	55	27	48·3	32·6	40·2	− 9·1	18	36	2	0·12	−0·86	*	*
	Liverpool Obsy (Bidston)	55	34	48·7	39·1	43·8	− 7·1	25	8	4	0·12	−0·70	*	*
	Llandudno ℳ													
	Holyhead	55	35	50·4	41·3	45·7	− 6·2	29	2	4	0·45	−0·57	*	*
8. ENGLAND, S.W.	Llandovery	64	23	51·9	27·4	39·3	−11·6	28	56	5	0·47	−0·78	*	*
	Pembroke	57	37	50·6	40·4	45·4	− 7·4	31	4	4	0·60	−0·33	32	43
	Arlington (N. Devon)	57	31	49·4	33·7	41·3	− 9·5	21	32	5	0·63	−0·68	*	*
	Cullompton ℳ	58	27	51·7	31·5	41·3	−10·0	27	41	4	0·68	−0·22	35	47
	Falmouth	52	35	50·1	38·6	44·2	− 9·0	30	10	4	0·69	−0·66	44	59
	Plymouth	56	34	50·7	36·5	43·4	− 9·4	33	15	3	0·83	−0·02	38	51
	Prawle Point	61	32	54·6	35·1	44·6	− 7·6	47	19	3	0·62	?	*	*
9. IRELAND, N.	Malin Head	52	33	48·0	42·1	44·8	− 3·8	20	0	6	0·43	?	*	*
	Londonderry	53	33	49·3	39·0	44·2	− 4·3	28	8	6	0·55	−0·43	*	*
	Mullaghmore	53	38	50·1	41·4	45·6	− 3·3	28	2	5	0·51	−0·41	*	*
	Belmullet	52	40	50·6	42·7	46·5	− 4·3	32	0	5	0·41	?	*	*
	Markree Castle	52	34	49·5	39·3	44·3	− 4·2	27	8	5	0·58	−0·30	21	28
	Brookeborough	54	31	48·3	35·5	41·7	− 6·2	18	26	3	0·30	?	*	*
	Armagh	54	31	48·8	35·8	42·1	− 6·3	27	17	1	0·02	−0·68	17	23
	Donaghadee	53	33	50·1	39·7	44·8	− 5·5	29	6	3	0·32	−0·43	*	*
	Edgeworthstown	54	31	48·6	35·7	42·0	− 5·9	18	18	2	0·27	−0·42	*	*
10. IRELAND, S.	Dublin	54	33	48·6	37·9	43·1	− 6·9	25	11	2	0·11	−0·59	24	32
	Parsonstown	54	29	49·7	33·9	41·6	− 7·5	22	32	1	0·13	−0·62	25	34
	Kilkenny	56	31	53·1	34·9	43·7	− 5·9	42	20	1	0·04	−0·66	*	*
	Waterford	59	32	52·4	34·4	43·1	− 8·1	40	21	1	0·06	−0·87	*	*
	Roche's Point	54	36	51·4	39·9	45·5	− 6·4	33	6	1	0·03	−0·92	*	*
	Valencia	55	40	51·7	42·9	47·2	− 5·4	36	0	3	0·40	−0·97	20	27
	Killarney	54	30	49·9	35·1	42·3	− 9·0	31	19	1	0·36	?	*	*
	Foynes	53	35	50·6	41·1	45·7	− 4·3	30	3	1	0·10	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	58	43	52·9	44·9	48·8	− 6·1	48	0	4	0·53	−0·35	*	*
	Jersey (Noirmont)	56	41	53·0	42·9	47·8	− 7·1	41	0	4	1·12	+0·13	35	47

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked Ꞩ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, 6, NORTH BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. IV. No. 42.] *Second Series.* WEEK ENDING MONDAY, 24TH OCTOBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

DISTRICTS. (See p. 164.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	58	29	48·1	38·6	43·2	2 below.	23	− 7	10	0	1840	+ 62	592	+ 69
1. SCOTLAND, EAST	57	26	50·4	37·8	43·9	1 below.	31	− 4	12	0	2363	+ 92	635	+ 81
2. ENGLAND, N.E.	56	27	49·9	38·3	43·9	3 below.	29	− 7	10	+ 2	2388	− 50	600	+112
3. ENGLAND, EAST	56	25	50·6	35·3	42·7	6 below.	33	− 8	19	+12	2674	−125	728	+216
4. MIDLAND COUNTIES	60	23	51·8	34·9	43·1	5 below.	38	− 2	20	+11	2667 *	− 98	733	+217
5. ENGLAND, SOUTH	59	26	53·1	36·1	44·3	6 below.	41	− 7	17	+12	2359	−171	578	+201
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	54	28	51·7	39·7	45·5	1 below.	34	− 4	6	− 1	2332	− 53	487	+ 83
7. ENGLAND, N.W.	55	27	50·6	40·6	45·5	3 below.	30	−10	4	− 1	2486	− 60	530	+145
8. ENGLAND, S.W.	61	25	53·6	40·2	46·7	4 below.	40	−15	5	+ 3	2814	− 82	430	+196
9. IRELAND, NORTH	58	31	51·4	42·7	46·7	1 below.	33	− 7	0	− 6	2609	+139	381	+ 27
10. IRELAND, SOUTH	60	28	54·1	41·2	47·5	2 below.	42	+ 4	2	− 3	2950	+156	351	+110
— CHANNEL ISLANDS	61	37	55·7	43·5	49·4	4 below.	52	−18	0	0	3103	− 55	170	+ 77

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 164.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	6	12	2 more.	186	+ 6	31·2	+ 3·1	7	10	930	−194	24	− 5
1. SCOTLAND, EAST	3	2	5 less.	138	−16	18·7	− 7·2	22	32	1292	+ 18	33	0
2. ENGLAND, N.E.	2	4	2 less.	126	−23	15·1	− 7·1	24	35	1276	+102	33	+ 3
3. ENGLAND, EAST	2	3	3 less.	120	−31	14·1	− 6·7	23	33	1552	+135	41	+ 4
4. MIDLAND COUNTIES	1	1	6 less.	107	−41	14·0	− 9·7	24	34	1413 *	+139	37	+ 3
5. ENGLAND, SOUTH	1	less than ½	7 less.	106	−36	14·3	− 7·7	29	41	1556	+191	41	+ 5
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	2	1	8 less.	137	−29	27·4	− 8·4	16	22	1390	+160	36	+ 4
7. ENGLAND, N.W.	2	1	8 less.	116	−39	18·2	− 9·8	21	30	1434	+201	37	+ 5
8. ENGLAND, S.W.	1	1	10 less.	111	−51	17·3	−16·9	24	33	1782	+309	47	+ 8
9. IRELAND, NORTH	2	2	6 less.	140	−44	23·4	− 5·2	7	10	1265	+123	33	+ 3
10. IRELAND, SOUTH	1	less than ½	9 less.	115	−56	19·3	−12·2	15	21	1560	+249	41	+ 7
— CHANNEL ISLANDS	1	less than ½	9 less.	126	−49	15·2	−10·7	47	65	1941	+197	51	+ 5

General Remarks.

Weather has been generally fair over the southern parts of the United Kingdom, but unsettled and showery in the north. Fog has been somewhat frequent over England, and at the close of the week squalls of snow or hail were experienced at our northern and eastern stations.

Temperature has again been below the mean in all districts, the deficit ranging from 1° in "Scotland, E.", "Scotland, W.", and "Ireland, N.", to 5° in the "Midland Counties" and to 6° in "England, E." and "England, S." The highest of the maxima were recorded as a rule either on the 19th or 20th, when the thermometer exceeded 55° in most places and reached 60° or 61° in the "Midland Counties", "England, S.W.", "Ireland, S.", and the "Channel Islands". The lowest of the minima were registered generally on the 22nd, when the thermometer fell to 25° in "England, E." and "England, S.W." and to 23° in the "Midland Counties". On the surface of the ground the frosts were at times very severe.

Rainfall has been considerably less than the mean in all districts excepting "Scotland, N." In "England, S.", "Ireland, S.", and the "Channel Islands" the amount has been scarcely appreciable.

Bright sunshine has been less prevalent than it was last week, the percentage of the possible amount of duration ranging from 10 in "Scotland, N." and "Ireland, N.", to 41 in "England, S." and 65 in the "Channel Islands".

Depressions observed.—Over the southern districts the weather has been influenced almost entirely by two well-defined anticyclonic systems which have passed steadily across Ireland and England in an easterly direction; the winds have therefore been generally light in force and somewhat variable in direction. In the north, however, conditions have been affected by a series of large and deep depressions, the centres of which have travelled eastwards across the north of Scandinavia. These disturbances have produced frequent westerly gales in Norway and occasional strong winds from the same quarter on our northern coasts. On the 23rd some secondary depressions were formed in the rear of one of the main systems, and in the course of the ensuing 24 hours, when these moved south-eastwards across the North Sea, very strong winds from the Northward set in over the whole of the United Kingdom.

* These values have been altered slightly owing to the receipt of further information.

A 52358. 350.—10/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

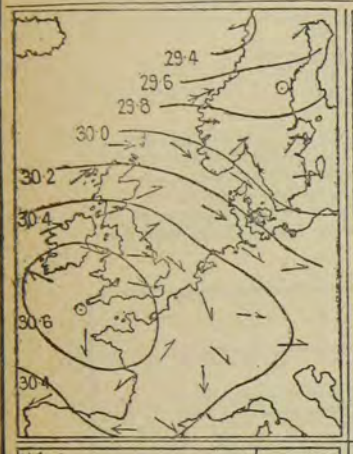
Weather

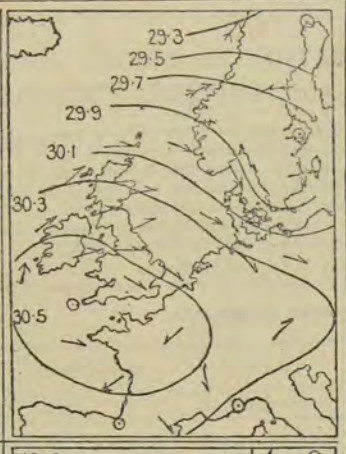
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, October 18.

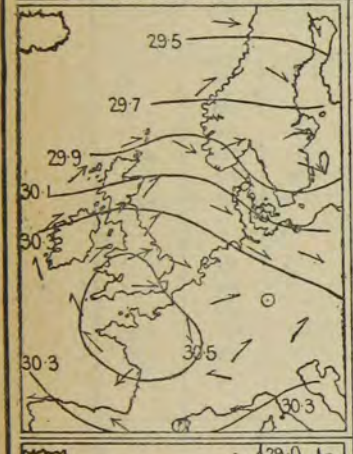
Weather cloudy generally, with fog in Belgium, the south-east of England, and the north-east of France, and rain in Germany and the west of Norway. Fog clearing later.

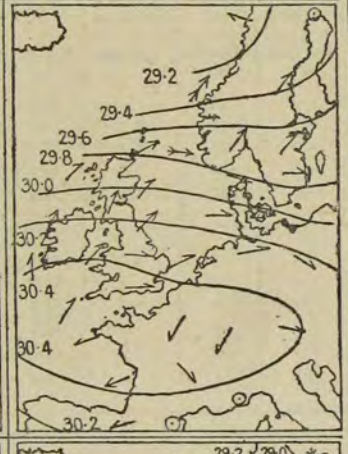
Temperature risen at all but our south-eastern stations; readings over our Islands ranging at 8 a.m. from 52° at Stornoway and Valencia to 34° at Oxford. Rise extending to south-east later.

Wind strong from South-West or West in the extreme north, with a gale at Christiansund, but light or moderate from the Northward or North-Eastward at our southern and the French stations. Subsequently backing to the Southward in the west of Ireland.

Sea rather rough at Christiansund and Stornoway, but slight or smooth elsewhere.

Barometer rising in France, Germany, and the south of our Islands, but falling elsewhere. Large anticyclone lying over our southern districts, but rather deep depression over the north-west of Norway. Depression subsequently moving away in a north-easterly direction, but slight fall of barometer taking place generally.





Wednesday, October 19.

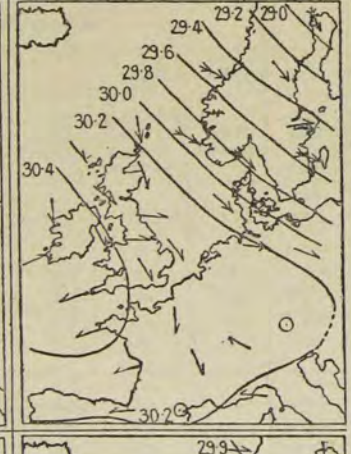
Weather fair generally, but dull in many places, with fog or mist at some of our eastern stations. Rain setting in later on our north and north-west coasts.

Temperature risen slightly in most places; readings over our Islands ranging at 8 a.m. from 54° at Valencia to 44° at Parsonstown, Hurst Castle, Dungeness, and Oxford.

Wind moderate or fresh from South-West on our western and northern coasts, but Westerly over the North Sea and North-Easterly at our southern and the French Stations. South-Westerly breeze increasing to moderate gale later on our extreme north and north-west coasts.

Sea rather rough at Christiansund and Stornoway, but moderate to smooth elsewhere.

Barometer falling generally. Anticyclone over our southern districts moving slowly eastwards, and deep depression approaching Norway from the Atlantic. Fall continuing all day.



Thursday, October 20.

Weather fair generally, but overcast skies, and rain reported locally. Rain falling later at several of our northern stations.

Temperature risen slightly over England and Sweden, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 54° at Valencia to 41° in the Shetlands. Maxima above 55° at our central and southern stations, but sharp frost occurring over all the inland districts at night.

Wind Westerly or North-Westerly at all but the French stations, where Easterly breezes continued, moderate in force in our Islands, but strong to a gale on the eastern shores of the North Sea. Subsequently veering to the northward at some of our northern stations.

Sea rough off the Shetlands and west of Norway.

Barometer rising in the west and north of our Islands, but fallen elsewhere. Anticyclonic band extending from Ireland across the English Channel to South Germany, but deep depression lying over the north of Sweden. Depression subsequently moving eastwards, and barometer rising generally.

Friday, October 21.

Weather fine generally, but dull on our extreme western and northern coasts, and foggy over England. Fog clearing later.

Temperature fallen several degrees; readings over our Islands ranging at 8 a.m. from 53° at Scilly and Jersey to 33° at Parsonstown and 32° at Loughborough. Brisk rise taking place over England during daytime, but sharp frost again occurring at night.

Wind strong from North-West in Scandinavia and Denmark, and moderate from the same quarter on our east coasts, but North-Easterly or Easterly at our western, southern, and the French stations. Subsequently veering to the South-Eastward in Ireland.

Sea rough off the west of Norway, but moderate to smooth elsewhere.

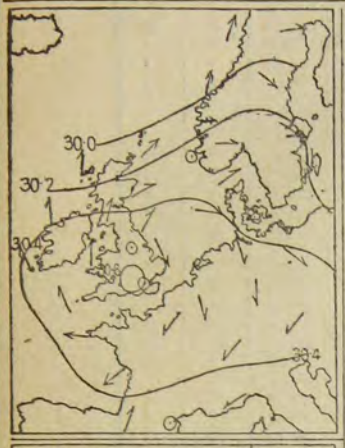
Barometer rising generally. Well defined anticyclone lying over our west and north-west coasts, with low pressure (the remains of the previous day's depression) over the Gulf of Bothnia. Anticyclone subsequently moving eastwards, and barometer falling slightly in west.

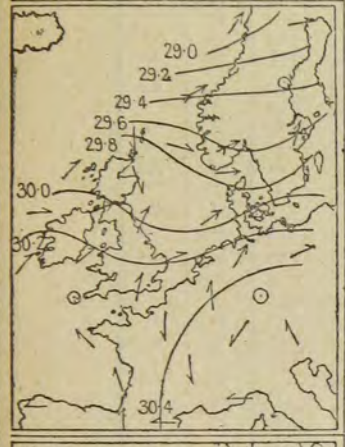
SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

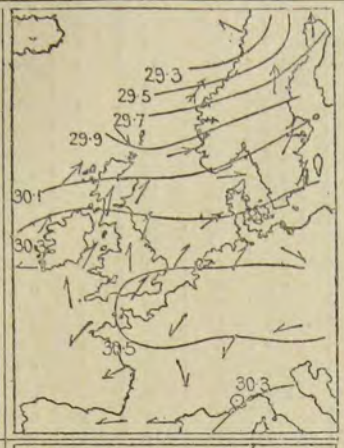
PRESSURE AND WIND.

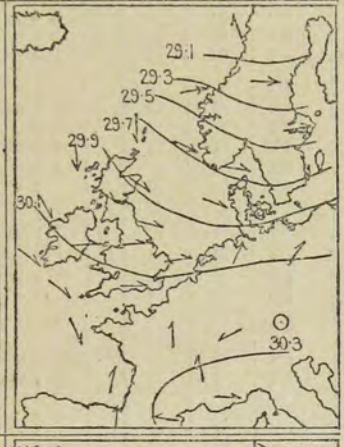
8 a.m.

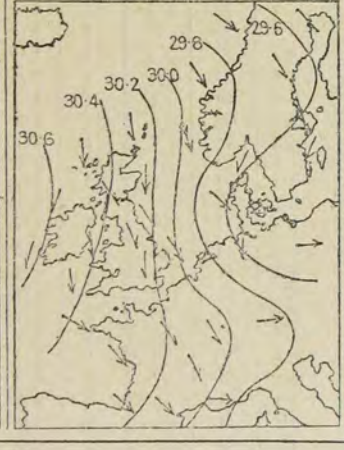




6 p.m.







Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Saturday, October 22.

Weather fair generally but dull in the extreme west and north, and foggy over England. Dull weather subsequently extending eastwards, and rain falling in the Shetlands and Hebrides.

Temperature risen several degrees in the west and north, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 53° at Roche's Point and Scilly to 24° at Loughborough. Rapid rise taking place over England later.

Wind moderate Southerly or South-Westerly on our western and northern coasts, but light Westerly on the eastern shores of the North Sea and Easterly in France. South-Westerly breeze subsequently blowing strongly in the extreme North.

Sea rather rough at Christiansund and Sumburgh Head, but moderate to smooth elsewhere.

Barometer falling decidedly in west and north, but rising elsewhere. Anticyclone lying over England and the Netherlands, but new depression approaching the Norwegian coast from the westward. Fall becoming general later, and secondary disturbances appearing off the north of Scotland.

Sunday, October 23.

Weather fine in France, Spain, and South Germany, but cloudy elsewhere; with rain at one or two of the northern stations. Cold showers falling in north later, and lunar and solar halos seen in many parts of England.

Temperature risen several degrees over England, but fallen elsewhere: readings over our Islands ranging at 8 a.m. from 54° at Valencia to 39° at Dungeness and in London. Brisk fall taking place in north later.

Wind light Northerly in the north-east of Scotland, but South-Westerly in other parts of our Islands, and also in Scandinavia with gale in Norway. Light South-Easterly breezes reported in France. Subsequently veering to the North-Westward on our western and eastern coasts.

Sea rough off the Norwegian coasts, but moderate to smooth elsewhere.

Barometer falling generally; quickly in Scandinavia. Anticyclone lying over South Germany and the east of France, with a large and deep depression off the north-west of Norway, and some subsidiary disturbances off the north of Scotland. Depressions subsequently moving south-eastwards, and barometer beginning to rise again in extreme north.

Monday, October 24.

Weather fine at most of the southern stations, but squally and showery elsewhere, with snow or hail in the north and east.

Temperature fallen several degrees at all but the French and German stations; readings over our Islands varying at 8 a.m from 51° at Scilly and Jersey to 32° at Sumburgh Head and Stornoway. Sharp frosts occurring in many places at night.

Wind strong Northerly or North-Westerly at all but the German and eastern French stations, where moderate South-Westerly breezes prevailed.

Sea rough or rather so on all the more exposed parts of our eastern and western coasts.

Barometer rising over the greater part of our Islands and Scandinavia, but falling elsewhere. New anticyclone appearing off the west of Ireland, but depression lying over the Gulf of Bothnia, and subsidiary disturbances over Denmark and the south of Sweden. Depressions subsequently moving eastwards, and barometer rising generally.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	52	29	46·1	38·6	42·2	− 3·5	16	10	6	0·51	−0·48	*	*
	Stornoway	54	31	48·6	40·0	44·2	− 1·0	24	6	7	1·13	+0·02	11	16
	Wick	58	31	49·0	39·3	44·0	− 1·2	25	8	5	0·65	0·00	*	*
	Lairg	54	26	48·3	36·3	42·1	− 2·3	25	16	4	0·52	−0·43	*	*
	Glencarron	50	30	46·7	38·4	42·4	− 2·1	18	10	7	3·55	?	3	4
	Fort Augustus	53	32	49·6	39·2	44·3	− 2·0	28	8	4	0·65	?	*	*
1. SCOTLAND, E.	Nairn	57	34	49·1	41·3	45·1	− 0·7	25	2	4	0·39	−0·14	*	*
	Aberdeen	57	30	49·9	36·9	43·2	− 2·4	30	14	4	0·52	−0·13	16	24
	Braemar	51	26	48·2	34·4	41·1	− 1·2	17	30	4	0·35	−0·55	13‡	19‡
	Ochtertyre	55	29	52·0	35·7	43·6	− 1·7	38	18	2	0·05	−0·97	*	*
	Leith	57	30	53·3	40·1	46·5	+ 0·4	39	5	1	0·05	−0·40	*	*
	Marchmont	56	27	49·7	38·3	43·8	+ 0·3	28	10	2	0·05	−0·71	37	54
2. ENGLAND, N.E.	Alnwick Castle	52	30	48·1	38·0	42·9	− 3·2	23	11	3	0·18	−0·45	*	*
	Durham	56	28	50·5	36·7	43·4	− 2·9	32	15	1	0·06	−0·62	27	39
	Shields	55	31	50·7	38·6	44·5	− 2·4	32	10	2	0·17	−0·38	*	*
	Scarborough	53	32	49·7	39·5	44·5	− 2·2	28	7	2	0·69	−0·02	25‡	36‡
	York	54	27	51·4	35·7	43·3	− 4·5	36	18	2	0·32	−0·24	21	30
	Spurn Head	52	35	49·1	41·0	44·9	− 2·9	25	3	4	0·90	?	*	*
3. ENGLAND, E.	Hillington	54	29	50·7	34·4	42·3	− 5·8	34	21	3	0·35	−0·25	20	29
	Yarmouth	52	37	48·9	38·7	43·7	− 5·5	26	9	3	0·51	−0·17	*	*
	Geldeston	56	34	51·4	36·1	43·5	− 5·9	35	17	3	0·58	−0·03	25	35
	Cambridge	56	25	52·1	34·1	42·8	− 6·0	39	22	2	0·22	−0·28	25	35
	Rothamsted	54	25	50·8	32·2	41·2	− 6·8	25	38	1	0·07	−0·63	*	*
	Ingatestone	54	31	49·9	36·1	42·8	− 6·1	30	17	1	0·06	−0·61	23‡	32‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	55	26	51·1	35·7	43·2	− 5·1	35	18	0	—	−0·66	21‡	30‡
	Loughborough	56	23	52·3	33·7	42·7	− 4·8	40	23	1	0·05	−0·63	*	*
	Leicester	55	24	51·9	36·1	43·8	− 3·7	37	17	3	0·15	−0·45	16	23
	Cheadle	54	31	50·2	37·3	43·6	− 3·2	31	13	1	0·25	−0·60	*	*
	Churchstoke	55	29	51·3	35·6	43·2	− 4·3	35	18	2	0·14	−0·68	22	31
	Hereford	60	25	53·5	34·8	43·9	− 4·4	44	20	1	0·17	−0·50	*	*
	Cirencester	58	27	52·7	32·4	42·3	− 6·0	42	27	1	0·10	−0·61	33	46
	Oxford	55	27	51·6	33·4	42·2	− 6·3	38	24	1	0·08	−0·53	29	41
5. ENGLAND, S.	London	55	28	50·9	33·7	42·1	− 7·5	36	23	1	0·07	−0·54	15‡	21‡
	Strathfield Turgiss	56	26	54·2	33·2	43·4	− 5·9	47	25	1	0·10	−0·51	*	*
	Dungeness	59	31	52·6	35·4	43·8	− 6·2	40	18	0	—	−0·76	*	*
	Hastings (St. Leonard's)	58	37	52·1	40·5	46·1	− 4·2	35	4	0	—	−0·82	34	48
	Southampton	58	31	55·3	36·3	45·5	− 4·9	48	16	0	—	−0·75	37	52
	Hurst Castle	57	33	54·7	37·6	45·9	− 4·8	46	12	0	—	−0·73	*	*
	Stowell	57	29	51·7	35·9	43·6	− 5·5	37	17	2	0·08	?	30‡	42‡
6. SCOTLAND, W.	Laudale (Loch Sunart)												*	*
	Glasgow	54	29	51·4	37·4	44·2	− 1·1	35	13	1	0·09	−0·83	14	20
	Ardrossan	54	33	52·1	42·7	47·3	+ 0·5	37	0	2	0·19	−0·77	*	*
	Glenlee	54	28	51·3	37·3	44·1	− 2·3	34	13	3	0·18	?	*	*
	Douglas (Isle of Man)	54	34	51·9	41·2	46·4	− 2·0	34	2	1	0·11	−0·88	17	24
7. ENGLAND, N.W.	Newton Reigny (Penrith)	53	27	50·6	37·1	43·7	− 2·1	32	14	1	0·10	−0·70	23	33
	Barrow-in-Furness	53	35	50·9	41·6	46·1	− 2·5	30	1	1	0·16	−0·79	*	*
	Stonyhurst	52	30	49·0	38·7	43·7	− 3·4	26	9	1	0·07	−1·18	22	31
	Blackpool	53	35	50·2	39·8	44·9	− 4·4	30	6	1	0·23	−0·73	19	27
	Manchester	52	32	50·3	39·2	44·6	− 3·2	30	8	3	0·18	−0·79	*	*
	Liverpool Obsy (Bidston)	54	36	50·7	42·1	46·3	− 2·6	30	0	2	0·14	−0·67	*	*
	Llandudno													
	Holyhead	55	39	52·4	45·6	48·9	− 1·6	48	0	2	0·13	−0·88	*	*
8. ENGLAND, S.W.	Llandovery	58	25	53·9	33·3	43·3	− 6·2	46	24	1	0·13	−1·12	*	*
	Pembroke	55	43	52·4	46·4	49·3	− 2·4	51	0	1	0·01	−0·92	13	18
	Arlington (N. Devon)	57	35	51·6	38·3	44·8	− 4·4	35	10	1	0·01	−1·32	*	*
	Cullompton	59	28	53·2	36·4	44·6	− 5·0	42	16	2	0·09	−0·81	23	32
	Falmouth	55	38	54·0	43·6	48·7	− 3·0	47	0	1	0·07	−1·18	30	42
	Plymouth	56	34	54·2	41·2	47·5	− 3·7	42	2	1	0·01	−0·84	28	39
	Prawle Point	61	39	55·9	41·9	48·7	− 2·7	47	0	1	0·02	?	*	*
9. IRELAND, N.	Malin Head	54	37	50·6	45·3	47·9	+ 0·8	41	0	3	0·21	?	*	*
	Londonderry	54	33	51·0	41·8	46·3	− 0·6	31	0	3	0·31	−0·67	*	*
	Mullaghmore	55	40	51·9	45·1	48·4	+ 1·2	45	0	3	0·30	−0·64	*	*
	Belmullet	55	41	52·7	45·6	49·1	− 0·6	50	0	3	0·13	?	*	*
	Markree Castle	58	36	52·3	40·5	46·2	− 0·4	36	4	4	0·19	−0·68	11	16
	Brookeborough	56	31	50·3	38·9	44·4	− 1·8	30	9	1	0·12	?	*	*
	Armagh	55	32	51·2	40·3	45·6	− 1·1	32	5	2	0·12	−0·57	2	3
	Donaghadee	55	35	51·9	41·6	46·6	− 2·7	34	1	1	0·17	−0·58	*	*
	Edgeworthstown	55	32	50·7	40·7	45·6	− 0·7	31	4	1	0·20	−0·59	*	*
10. IRELAND, S.	Dublin	56	36	53·2	44·5	48·7	+ 0·3	47	0	1	0·04	−0·66	13	19
	Parsonstown	55	32	51·6	37·7	44·4	− 2·9	35	12	2	0·09	−0·64	19	27
	Kilkenny	60	29	57·4	36·4	46·6	− 1·0	56	16	0	—	−0·69	*	*
	Waterford	57	31	54·1	37·7	45·7	− 2·1	44	12	0	—	−0·95	*	*
	Roche's Point	60	38	54·4	43·7	48·9	− 1·7	48	0	0	—	−0·95	*	*
	Valencia	59	38	54·9	45·7	50·2	− 1·2	57	0	1	0·01	−1·37	12	17
	Killarney	57	30	54·5	43·3	48·7	− 1·2	47	0	1	0·03	?	*	*
	Foynes	56	28	53·0	40·3	46·5	− 1·8	39	5	2	0·03	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	58	40	55·7	46·4	50·9	− 2·6	62	0	1	0·01	−0·86	*	*
	Jersey (Noirmont)	61	37	55·6	40·6	47·9	− 5·4	47	4	1	0·05	−0·94	47	65

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked Ŝ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 43.] *Second Series.* WEEK ENDING MONDAY, 31ST OCTOBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 172.)	Observed during the Week. Highest.	Observed during the Week. Lowest.	Averages of Daily Maxima.	Averages of Daily Minima.	Averages of Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	55	28	47·8	37·3	42·4	1 below.	23	− 1	13	0	1833	+ 62	605	+ 65
	1. SCOTLAND, EAST	60	28	49·8	36·1	43·3	0 (average).	34	+ 7	17	+ 2	2397	+102	652	+ 77
	2. ENGLAND, N.E.	56	26	49·0	37·2	42·9	2 below.	26	− 3	13	+ 2	2414	− 53	613	+113
	3. ENGLAND, EAST	61	22	50·4	35·8	42·9	4 below.	32	− 1	17	+ 7	2706	−129	745	+221
	4. MIDLAND COUNTIES	61	20	50·9	34·9	42·7	3 below.	35	+ 3	20	+ 6	2702	− 96	753	+223
	5. ENGLAND, SOUTH	61	20	52·1	36·6	44·1	4 below.	37	− 2	15	+ 7	2896	−174	593	+209
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	58	26	50·0	37·6	43·6	1 below.	30	− 2	12	+ 1	2361 *	− 55	499	+ 81
	7. ENGLAND, N.W.	54	25	49·0	39·1	43·9	3 below.	25	− 8	8	0	2511	− 66	538	+144
	8. ENGLAND, S.W.	59	20	51·8	38·8	45·1	4 below.	35	−13	9	+ 6	2849	− 94	439	+201
	9. IRELAND NORTH	57	27	49·7	38·9	44·1	2 below.	28	− 6	9	+ 1	2636 *	+135	390	+ 24
	10. IRELAND, SOUTH	60	22	53·1	39·3	46·0	2 below.	39	− 4	8	+ 1	2989	+156	359	+110
	— CHANNEL ISLANDS	59	33	53·2	43·8	48·3	4 below.	44	−18	0	0	3147	− 71	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 172.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	Rainfall. From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	Bright Sunshine. From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	13	4 more.	192	+ 8	32·5	+ 3·5	8	13	938	−208	24	− 5
	1. SCOTLAND, EAST	4	3	4 less.	142	−16	19·0	− 7·6	19	29	1311	+ 13	33	0
	2. ENGLAND, N.E.	4	4	3 less.	130	−23	15·5	− 7·4	26	39	1302	+114	33	+ 3
	3. ENGLAND, EAST	4	9	3 more.	124	−32	15·0	− 6·4	35	51	1587	+149	41	+ 4
	4. MIDLAND COUNTIES	5	14	7 more.	112	−41	15·4	− 9·0	35	51	1448	+160	37	+ 4
	5. ENGLAND, SOUTH	4	12	5 more.	110	−36	15·5	− 7·2	32	47	1588	+206	41	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	6	18	2 more.	143	−27	29·5 *	− 7·9	22	33	1412	+163	36	+ 4
	7. ENGLAND, N.W.	6	13	4 more.	122	−36	19·5	− 9·5	25	37	1459	+212	37	+ 5
	8. ENGLAND, S.W.	6	27	16 more.	117	−49	20·0	−15·3	29	42	1811	+320	47	+ 8
	9. IRELAND, NORTH	6	17	8 more.	146	−42	25·1	− 4·3	20	29	1285	+123	33	+ 3
	10. IRELAND, SOUTH	5	23	15 more.	120	−55	21·6	−10·8	26	39	1586	+256	41	+ 7
	— CHANNEL ISLANDS	6	23	14 more.	132	−48	17·5	− 9·4	29	42	1970	+206	51	+ 5

General Remarks.

Weather was generally fine and bright during the earlier part of the period, but towards its close the conditions became very unsettled in all parts of the Kingdom, with heavy falls of rain. At a few places thunder and lightning were experienced.

Temperature has continued below the mean in all districts excepting "Scotland, E.", the deficit ranging from 1° in "Scotland, N." and "Scotland, W." to 4° in "England, E.", "England, S.", "England, S.W.", and the "Channel Islands". The highest of the maxima, which were generally recorded on the 28th, varied from 54° in "England, N.W." to 61° over southern, central, and eastern England. The lowest of the minima were registered on the 26th, when the thermometer fell to 20° in the "Midland Counties", "England, S.", and "England, S.W.", and to between 22° and 28° in most other districts. In the "Channel Islands" the lowest reading was 33°.

Rainfall has been less than the mean in "Scotland, E." and "England, N.E.", but more in all other districts. In Ireland, the Channel Islands, and the south-west of England the amount has been very heavy.

Bright sunshine shows an increase on that reported last week. The percentage of the possible amount of duration ranging from 13 to 33 in Scotland, from 29 to 39 in Ireland, and from 37 to 51 in England.

Depressions observed.—During the first part of this period the distribution of barometric pressure over our Islands was anticyclonic, and the only depressions in our area passed north-eastwards some distance to the northward of Scotland. Towards the end of the week, however (the anticyclone having moved south-eastwards to France) the centre of the disturbances were but little distance from our northern coasts, while during the night of the 29th—30th a very deep secondary depression travelled quickly east-north-eastwards over the south of England. Under the influence of this depression the wind, which had previously been moderate to strong from the Westward or South-Westward, increased to a strong gale at all our more southern and south-western stations. At the end of the period another deep depression had appeared over Ireland and the wind had increased to a violent gale from the Southward on our western coasts.

* This value has been altered owing to the receipt of further information.

A 52411. 350.—11/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

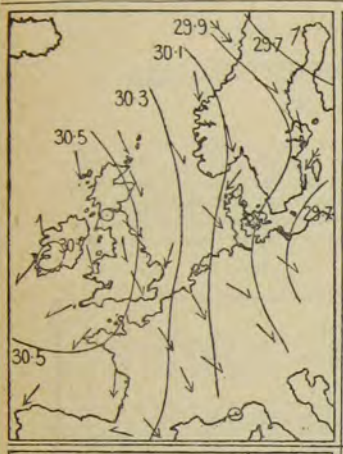
Weather

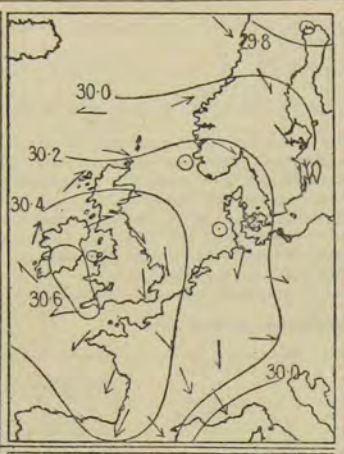
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, October 25.

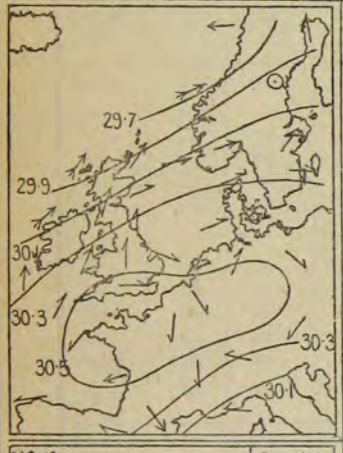
Weather fine in Sweden, Denmark, the south-west and south of our Islands, and the west of France, but cloudy elsewhere, with showers of hail or snow in the east of England and snow in Norway.

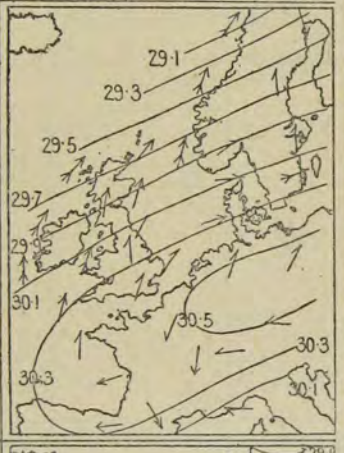
Temperature risen a little in the extreme north of our Islands, but fallen elsewhere—several degrees in the south; readings over the United Kingdom ranging at 8 a.m. from 45° at Scilly to 25° at Parsonstown. Sharp frost occurring over England at night.

Wind chiefly Northerly, inclining to North-West on our northern coasts, but to North-East in the south; strong in force at our south-eastern and most of the Continental stations. Subsequently backing to South-West on our extreme north and north-west coasts.

Sea rough on our east and south-east coasts, but moderate to smooth elsewhere.

Barometer rising generally. Large anticyclone lying over our western districts, with low pressures over the Baltic and the north of Sweden. Gradients steep over the North Sea. Brisk fall taking place later on our extreme western and northern coasts.





Wednesday, October 26.

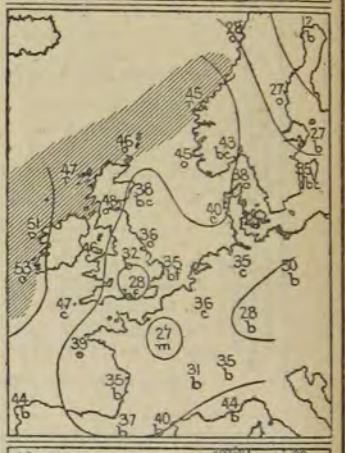
Weather fine at most of the English and Continental stations, but dull elsewhere, with rain at Christiansund and Stornoway. Rain falling later in the west and north generally—very heavily in the south of Ireland.

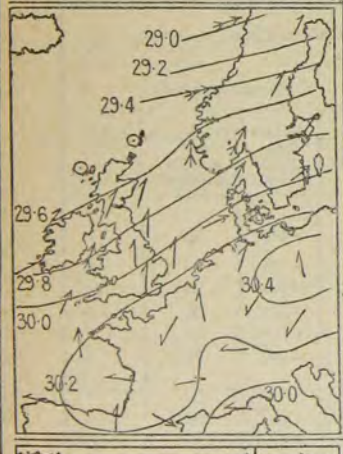
Temperature risen several degrees in the west and north, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 53° at Valencia to 26° at Oxford. Brisk rise taking place over England later.

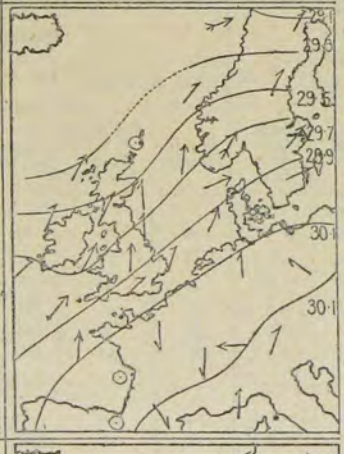
Wind very strong from the Southward or South-Westward over our western and northern coasts, but moderate from South-West in the east and light from the Eastward over France. Subsequently increasing to gale at most of our western and northern stations.

Sea rough in the extreme west and north.

Barometer falling quickly in our Islands, but rising at most of the Continental stations. Anticyclone of previous day now lying over the south of England, the Netherlands, and the north of France, and deep depression appearing in west and north. Fall becoming general later.







Thursday, October 27.

Weather fine in Germany and France, but dull and unsettled elsewhere, with rain in many places.

Temperature risen at all but the German and French stations; readings over our Islands ranging at 8 a.m. from 57° at Valencia to 43° at Yarmouth.

Wind light variable or Easterly over Germany and the south of France, but South-Westerly elsewhere. Strong to a gale in force over the Bristol and St. George's Channels as well as in Norway.

Sea high or rough on our western and also on the Norwegian coasts.

Barometer falling generally. Anticyclone lying over North Germany, a large depression over the north of Norway, with some shallow secondary disturbances over our western and northern coasts. Secondary systems moving eastwards later, but rise of barometer taking place over the north of Scandinavia.

Friday, October 28.

Weather rainy in Norway, the extreme south-east of England, and the north-east of France, but fine in most other localities. Showers falling later in most other parts of the Kingdom.

Temperature risen a little in England, France, and Germany, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 54° at Scilly and Jersey to 44° at Wick.

Wind moderate Westerly on our western and southern coasts, but South-Westerly in the north and east. Southerly on the eastern shores of the North Sea, with a gale in the south of Norway. Subsequently backing to South-West in the west of Ireland.

Sea rough on the Norwegian coasts, and rather rough at some of our southern stations, but moderate to slight elsewhere.

Barometer falling at all but our extreme south-western stations. Pressure highest over Spain and Central France, with a large area of low readings to the northward of our Islands, and some shallow secondary disturbances over our eastern districts. New fall taking place in west and south-west later.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

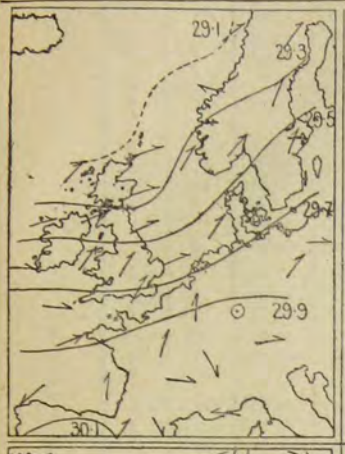
Weather

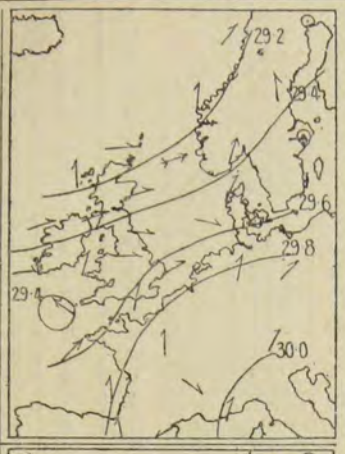
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Saturday, October 29.

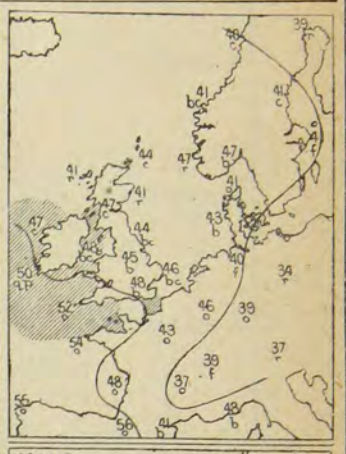
Weather changeable and showery in most districts. Solar halos seen later at many of the English stations, and heavy rain setting in over southern counties in evening.

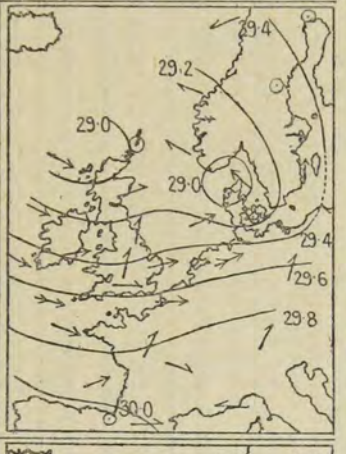
Temperature fallen a little in our Islands, but risen in France and Germany; readings over the United Kingdom ranging from 54° at Jersey to 41° at Stornoway, Nairn, Aberdeen, and Parsonstown.

Wind moderate South-Westerly on our south-west coasts, but South-Westerly elsewhere; moderate or fresh in force generally. Subsequently backing to the South-Eastward in the south of England and increasing in force; strong gale from West experienced at night.

Sea rough on our western and southern coasts, but moderate or slight elsewhere.

Barometer falling at all but the southern French stations. Pressure highest over Spain, with a large area of low readings to the northward of our Islands. Centre of deep secondary depression appearing in south-west later, and barometer falling quickly in the south of England.





Sunday, October 30.

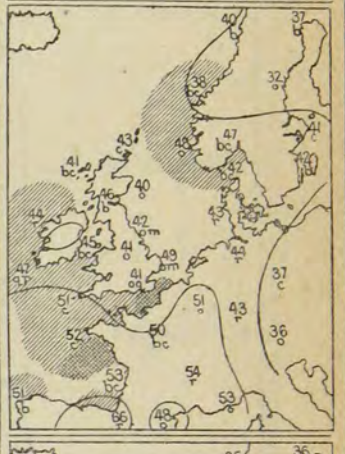
Weather rainy in the Netherlands and extreme south-east of England, and showery at some of our western stations, but fair or fine elsewhere. Showers of hail or rain falling generally later.

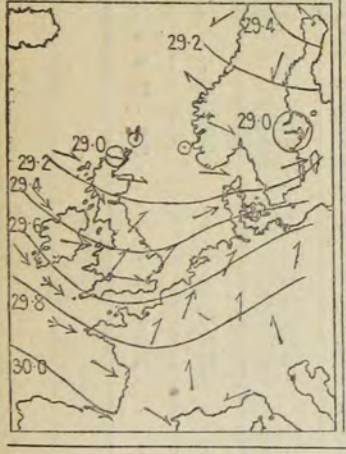
Temperature fallen in our Islands and the west of France, but risen elsewhere; readings over the United Kingdom ranging from 52° at Jersey to 37° at Nairn.

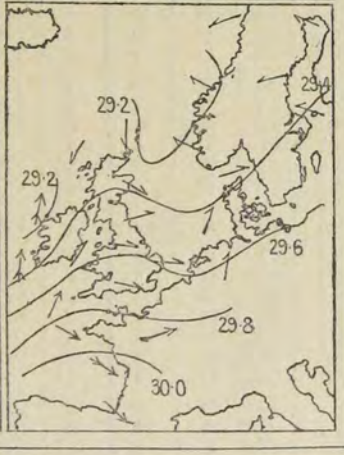
Wind moderate from South-West on our northern coasts, but strong from West in the south, and fresh from South-East in Holland. Subsequently veering to the Westward on our western coasts.

Sea very high at Cape Grisnez, high at Lorient, and rough in the south and south-west generally.

Barometer rising in the south-west of our Islands and west of France, but falling elsewhere. Pressure highest over Spain, with a large depression off our north-west coasts, and a small but very deep secondary disturbance off Yarmouth. Secondary moving away in a north-easterly direction later, and brisk rise taking place over England.







Monday, October 31.

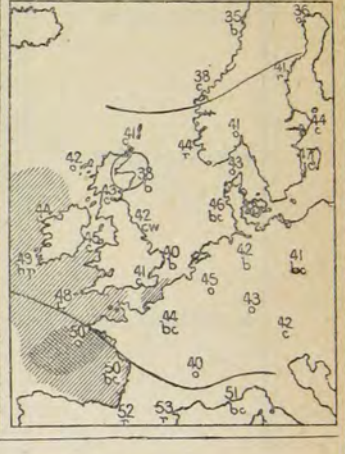
Weather showery generally in morning, but improving over England later. Heavy rain falling in Ireland at night.

Temperature risen a little in the west, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 49° at Valencia to 37° at Cambridge.

Wind fresh North-Westerly on our western coasts, but moderate from West or South-West elsewhere. Subsequently backing to South-West or South in the west, and increasing to strong gale in Ireland.

Sea rough at all the western and southern stations, but moderate to smooth elsewhere.

Barometer rising generally. Pressure still highest over Spain. Deep depression of previous day now shown over the south of Sweden, but new disturbance lying off the north of Scotland. Rapid fall taking place in west later, and another deep depression advancing towards the Irish coasts.



Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟫⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	50	28	48·0	39·1	43·4	− 1·0	22	8	6	0·73	−0·26	*	*
	Stornoway	52	29	48·3	37·4	42·7	− 1·2	24	13	7	1·69	+0·59	11	18
	Wick	52	31	48·4	37·7	42·9	− 1·0	24	12	3	0·54	−0·12	*	*
	Lairg ℳ	52	29	47·4	35·3	41·2	− 1·6	15	26	6	0·46	−0·46	*	*
	Glencarron ℳ	51	31	46·0	37·4	41·6	− 1·2	11	18	6	2·97	?	5	8
	Fort Augustus ℳ	55	32	48·5	37·1	42·6	− 1·9	25	14	6	1·52	?	*	*
1. SCOTLAND, E.	Nairn	59	32	50·1	37·0	43·4	− 0·6	24	14	3	0·12	−0·41	*	*
	Aberdeen	57	30	50·1	35·6	42·6	− 1·4	31	18	3	0·14	−0·53	22	34
	Braemar ℳ	53	29	46·5	37·8	42·0	+ 1·6	13	12	4	0·52	−0·36	14‡	22‡
	Ochtertyre ℳ	58	32	52·0	36·9	44·2	+ 0·6	37	14	6	0·80	−0·20	*	*
	Leith	60	33	52·3	39·3	45·6	+ 1·5	37	8	5	0·29	−0·17	*	*
	Marchmont ℳ	52	28	47·9	36·0	41·8	+ 0·5	17	24	4	0·16	−0·62	20	31
2. ENGLAND, N.E.	Alnwick Castle	53	30	48·1	37·3	42·5	− 2·1	23	13	4	0·33	−0·34	*	*
	Durham	56	26	49·7	36·7	43·0	− 1·5	29	15	4	0·21	−0·47	25	38
	Shields	54	29	50·6	37·7	44·0	− 1·3	32	12	2	0·08	−0·49	*	*
	Scarborough ℳ	54	29	47·1	37·2	42·0	− 2·9	14	13	6	0·51	−0·20	30‡	45‡
	York	55	28	50·0	35·9	42·7	− 3·1	31	17	5	0·37	−0·16	22	33
	Spurn Head	55	33	48·4	38·3	43·2	− 3·0	24	10	5	0·68	?	*	*
3. ENGLAND, E.	Hillington ℳ	57	26	48·6	35·3	41·8	− 4·5	18	27	5	1·24	+0·63	31	46
	Yarmouth	54	33	49·0	38·0	43·4	− 3·9	27	11	6	0·85	+0·15	*	*
	Geldeston	59	30	51·1	37·3	44·0	− 3·5	34	13	6	0·89	+0·27	36	53
	Cambridge	60	24	52·1	33·1	42·3	− 4·5	39	25	2	0·68	+0·19	39	57
	Rothamsted	61	22	50·7	34·7	42·5	− 3·5	34	20	4	0·96	+0·28	*	*
	Ingatestone	59	27	51·0	36·1	43·3	− 3·7	34	17	2	0·79	+0·14	33‡	49‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	55	26	50·3	34·7	42·2	− 4·1	31	20	5	0·80	+0·19	32‡	48‡
	Loughborough	59	23	52·4	34·7	43·3	− 2·3	40	20	4	1·30	+0·66	*	*
	Leicester	58	25	50·3	36·9	43·4	− 2·0	31	14	4	1·39	+0·83	30	45
	Cheadle ℳ	56	26	48·7	35·0	41·7	− 3·1	19	28	5	1·41	+0·60	*	*
	Churchstoke ℳ	56	24	51·0	36·0	43·3	− 2·0	34	17	5	1·04	+0·23	39	58
	Hereford ℳ	61	20	52·7	34·3	43·2	− 3·1	41	22	6	1·55	+0·91	*	*
	Cirencester	56	21	49·6	33·3	41·2	− 5·1	21	34	6	2·12	+1·41	35	51
	Oxford	60	26	52·1	34·6	43·1	− 3·3	39	21	5	1·24	+0·66	37	54
5. ENGLAND, S.	London	60	26	52·4	35·4	43·7	− 3·6	40	18	3	0·66	+0·07	27‡	40‡
	Strathfield Turgiss ℳ	59	20	52·8	32·5	42·4	− 4·9	43	27	6	1·17	+0·56	*	*
	Dungeness	58	27	52·1	38·3	45·0	− 3·1	37	10	4	0·90	+0·12	*	*
	Hastings (St. Leonard's)	58	31	51·6	39·8	45·5	− 2·9	34	6	5	1·08	+0·27	35	51
	Southampton	61	25	53·3	37·8	45·3	− 3·3	41	12	4	1·31	+0·59	34	50
	Hurst Castle	56	27	51·9	37·4	44·4	− 4·5	36	13	4	1·36	+0·64	*	*
	Stowell ℳ	57	24	50·8	35·0	42·7	− 4·6	34	20	5	2·00	?	31‡	46‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	58	35	50·2	41·1	45·5	0·0	28	3	26	?3·83†	+?1·93	*	*
	Glasgow	54	28	50·1	36·8	43·2	+ 0·1	30	15	6	1·11	+0·21	11	17
	Ardrossan	52	30	50·0	36·1	42·8	− 2·1	30	17	5	0·94	−0·01	*	*
	Glenlee	56	26	49·3	34·7	41·8	− 2·1	20	29	5	1·78	?	*	*
	Douglas (Isle of Man)	54	29	50·5	39·5	44·8	− 1·3	30	7	6	1·48	+0·48	32	48
7. ENGLAND, N.W.	Newton Reigny (Penrith)	53	25	48·0	36·4	42·0	− 2·2	17	16	4	1·20	+0·40	24	36
	Barrow-in-Furness	53	32	49·6	40·4	44·9	− 1·7	27	4	6	2·28	+1·34	*	*
	Stonyhurst	53	28	47·3	37·7	42·4	− 3·1	21	12	6	1·06	−0·14	26	39
	Blackpool ℳ	52	33	48·4	40·1	44·1	− 3·3	23	5	6	1·45	+0·52	24	36
	Manchester	54	27	48·5	36·6	42·4	− 3·7	25	15	6	1·18	+0·23	*	*
	Liverpool Obsy (Bidston)	54	32	49·7	39·0	44·2	− 3·0	28	8	6	0·94	+0·16	*	*
	Llandudno ℳ													
	Holyhead	54	37	51·4	43·7	47·4	− 1·6	38	0	5	1·30	+0·32	*	*
8. ENGLAND, S.W.	Llandovery	59	20	52·7	33·3	42·7	− 5·1	41	24	6	1·90	+0·66	*	*
	Pembroke	54	38	51·7	44·3	47·9	− 2·1	41	0	7	1·47	+0·54	25	37
	Arlington (N. Devon)	55	26	50·0	37·1	43·4	− 3·8	30	14	6	3·64	+2·28	*	*
	Cullompton ℳ	59	21	52·2	35·2	43·5	− 4·3	39	19	6	3·23	+2·36	30	44
	Falmouth	57	34	51·4	42·1	46·6	− 3·5	32	0	4	4·01	+2·74	34	49
	Plymouth	56	32	52·1	40·3	46·0	− 3·6	35	5	6	3·27	+2·42	26	38
	Prawle Point	56	29	52·7	39·3	45·7	− 4·3	37	8	6	1·10	* ?	*	*
9. IRELAND, N.	Malin Head	52	37	48·1	39·9	43·9	− 2·0	22	6	6	1·16	?	*	*
	Londonderry	54	32	47·1	38·4	42·6	− 2·8	19	10	7	1·54	+0·55	*	*
	Mullaghmore	54	35	50·6	40·7	45·5	− 0·1	30	3	6	2·48	+1·47	*	*
	Belmullet	54	40	50·9	43·9	47·3	− 1·3	37	0	6	3·74	?	*	*
	Markree Castle	55	28	50·1	36·7	43·2	− 2·1	31	15	6	1·54	+0·69	19	28
	Brookeborough	56	27	50·0	35·6	42·6	− 1·9	31	18	6	1·84	?	*	*
	Armagh	57	33	49·9	38·4	44·0	− 1·2	29	10	5	0·78	+0·12	20	30
	Donaghadee	56	36	50·6	40·1	45·2	− 2·6	30	5	4	0·81	+0·06	*	*
	Edgeworthstown	56	30	50·1	36·3	43·0	− 1·8	31	16	4	1·28	+0·53	*	*
10. IRELAND, S.	Dublin	60	35	51·1	41·4	46·1	− 0·5	31	2	5	1·00	+0·35	32	48
	Parsonstown	58	24	51·3	36·0	43·4	− 2·1	35	17	5	2·27	+1·57	26	39
	Kilkenny	60	24	56·4	36·3	46·2	+ 0·4	53	16	4	1·86	+1·20	*	*
	Waterford	57	27	52·8	37·1	44·7	− 3·8	39	14	5	1·65	+0·71	*	*
	Roche's Point	56	34	52·9	41·6	47·1	− 2·2	37	1	6	2·52	+1·57	*	*
	Valencia	57	31	54·3	40·6	47·3	− 2·7	43	4	6	4·21	+2·86	21	31
	Killarney	59	22	53·2	39·6	46·2	− 2·2	39	7	6	3·32	?	*	*
	Foynes	57	34	52·4	42·1	47·1	+ 0·7	36	0	6	1·92	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	56	41	52·7	45·1	48·8	− 3·5	48	0	6	3·09	+2·22	*	*
	Jersey (Noirmont)	59	33	53·6	42·4	47·8	− 3·5	41	0	5	1·55	+0·56	29	42

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Laudale being so much greater than that at the other stations in "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in that district.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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VOL. IV. No. 44.] *Second Series.* WEEK ENDING MONDAY, 7TH NOVEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 176.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	50	28	47·6	39·4	43·5	1 above.	21	+ 2	7	−10	1884	+ 64	612	+ 50
	1. SCOTLAND, EAST	54	29	47·8	37·8	42·8	1 above.	23	+ 2	12	− 7	2420	+103	664	+ 74
	2. ENGLAND, N.E.	53	32	48·4	39·9	44·2	0 (average).	24	+ 1	6	− 8	2438	− 56	619	+109
	3. ENGLAND, EAST	56	34	51·1	39·1	45·3	0 (average).	35	+ 9	8	− 6	2741	−125	753	+220
	4. MIDLAND COUNTIES	56	34	50·7	38·7	44·7	1 above.	33	+ 8	9	+ 2	2735	− 91	762	+220
	5. ENGLAND, SOUTH	56	29	52·3	41·5	46·9	1 above.	36	+ 3	1	−10	2932	−175	594	+202
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	53	34	48·6	39·8	44·2	1 above.	25	+ 6	6	− 8	2386	− 58	505	+ 78
	7. ENGLAND, N.W.	52	34	48·8	40·9	44·9	1 below.	25	+ 4	3	− 8	2546 *	− 61	530 *	+128
	8. ENGLAND, S.W.	55	34	51·3	41·8	46·6	1 below.	33	− 1	1	− 4	2882	−107	440	+199
	9. IRELAND, NORTH	54	32	48·9	39·5	44·3	0 (average).	27	+ 4	7	− 4	2663	+132	397	+ 25
	10. IRELAND, SOUTH	58	33	51·2	40·7	46·0	0 (average).	33	+ 2	4	− 5	3022	+149	363	+108
	— CHANNEL ISLANDS	55	42	53·2	46·2	49·7	1 below.	54	+ 8	0	0	3201	− 74	170	+ 77

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 176.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	11	0 (average).	198	+ 8	33·6	+ 3·6	3	4	941	−216	23	− 5
	1. SCOTLAND, EAST	6	20	12 more.	148	−14	21·0	− 6·4	8	13	1319	+ 6	33	+ 1
	2. ENGLAND, N.E.	7	13	6 more.	137	−20	16·8	− 6·7	10	16	1312	+114	33	+ 3
	3. ENGLAND, EAST	7	13	7 more.	131	−30	16·3	− 5·7	26	40	1613	+160	41	+ 4
	4. MIDLAND COUNTIES	6	13	6 more.	118	−39	16·7	− 8·3	20	31	1468	+166	37	+ 4
	5. ENGLAND, SOUTH	7	22	15 more.	117	−33	17·7	− 5·7	17	27	1605	+208	41	+ 6
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	7	17	4 more.	150	−24	31·3 *	− 7·1	14	22	1426	+164	36	+ 4
	7. ENGLAND, N.W.	7	13	4 more.	130 *	−33	20·9 *	− 9·0	10	16	1458 *	+198	37	+ 5
	8. ENGLAND, S.W.	7	24	13 more.	124	−48	22·4	−14·0	19	29	1830	+324	46	+ 8
	9. IRELAND, NORTH	7	21	12 more.	153	−40	27·2	− 3·1	16	25	1301	+125	33	+ 3
	10. IRELAND, SOUTH	7	15	7 more.	127	−53	23·1	−10·2	20	31	1606	+258	41	+ 7
	— CHANNEL ISLANDS	7	17	8 more.	139	−46	19·2	− 8·6	16	24	1986	+204	50	+ 5

General Remarks.

Weather has been very changeable and unsettled in all parts of the Kingdom with frequent and heavy falls of rain.

Temperature has continued below the mean in "England, N.W.", "England, S.W.", and the "Channel Islands", but in the other districts it has just equalled or slightly exceeded its normal value. The highest of the maxima, which were generally registered on the 4th, ranged from 50° in "Scotland, N." to 56° in "England, E.", "England, S.", and the "Midland Counties", and 58° in "Ireland, S." The lowest of the minima, which were recorded on irregular dates, varied from 28° in "Scotland, N." to 34° over the greater part of England and to 42° in the "Channel Islands".

Rainfall has been about equal to mean in "Scotland, N.", but more in all other districts, the excess in most places being very considerable.

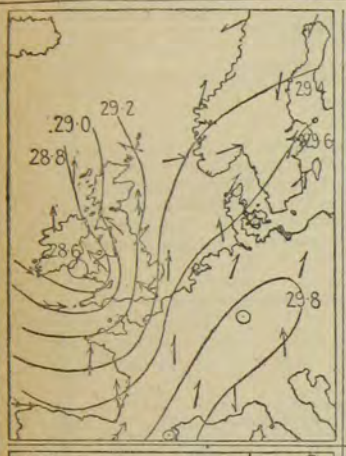
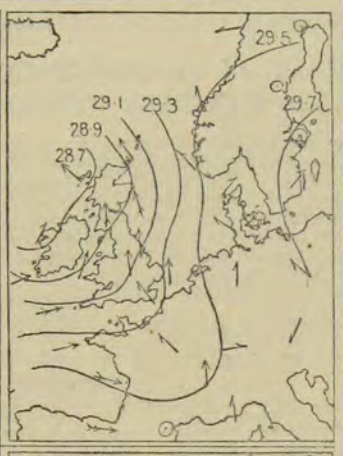
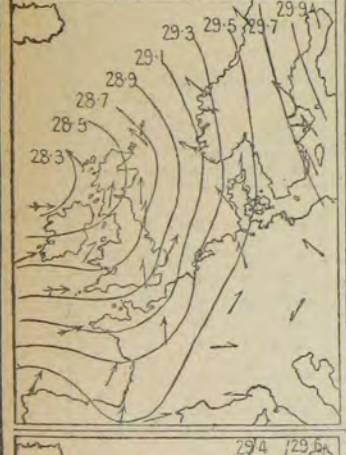
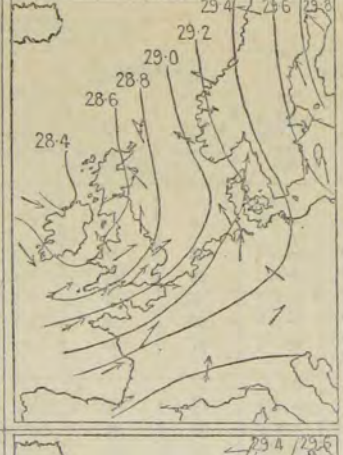
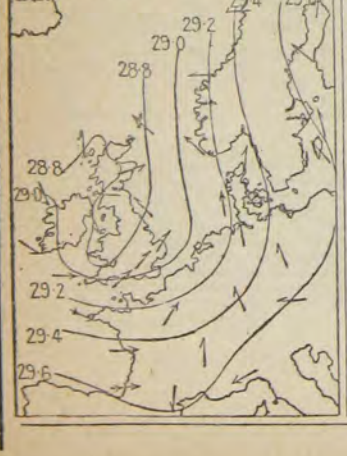
Bright sunshine shows a very decided decrease, the percentage of the possible amount of duration ranging from 4 to 22 in Scotland, from 25 to 31 in Ireland, and from 16 to 40 in England.

Depressions observed.—During the whole of this period the conditions over our Islands and their neighbourhood were cyclonic, while the barometer was generally highest over Spain. Several large and deep depressions appeared off our western and north-western coasts, while deep subsidiary disturbances passed more directly over us, causing strong winds or gales on nearly all our coasts. The Southerly gale experienced at the commencement of the period was of exceptional violence at our north-western stations. Towards the end of the period a well defined depression appeared over the St. George's Channel, and, after moving south-eastwards and eastwards, lay at the end of the week over the north of France. The winds over our Islands consequently became Easterly or North-Easterly, and blew freshly or strongly in most places, while over the north of Ireland they attained the force of a whole gale.

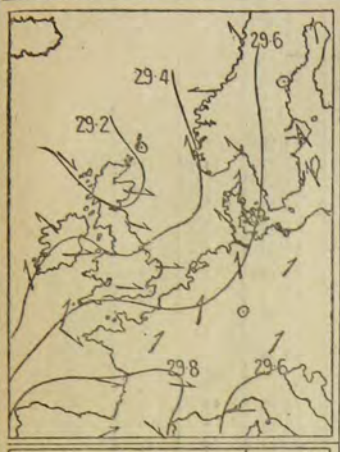
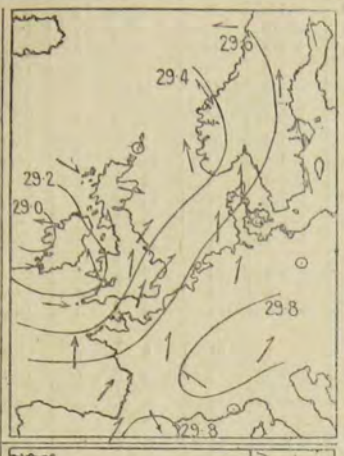
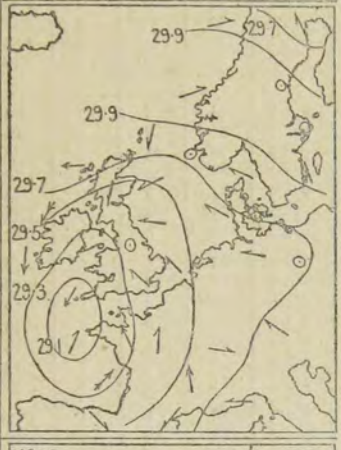
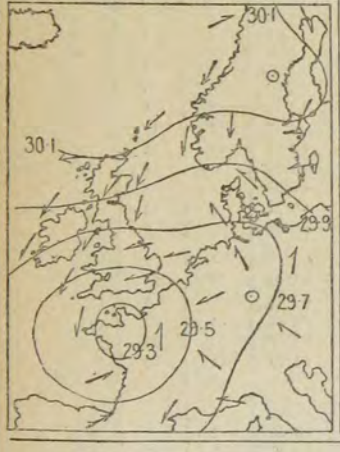
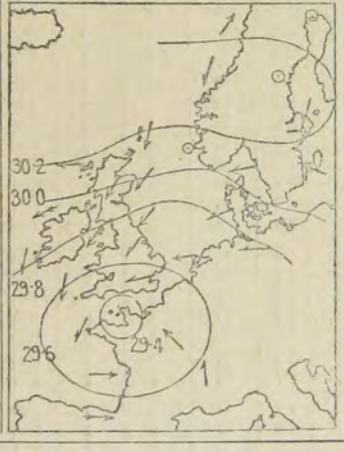
* This value has been altered owing to the receipt of some arrears of observations.

NOTE.—In consequence of the large amount of rainfall at Glencarron and Fort Augustus, and the fact that there are no weekly averages available for those stations, their records will in future not be used in calculating the "Difference from the Mean for the week" for that district. The Differences from the Mean in "Scotland, N." for the earlier weeks of the year, and with the values for these two stations omitted will be published shortly.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, November 1.** *Weather* dull over our Islands and the west of France, with rain at most of the western and south-western stations, but fair or fine elsewhere. Rain becoming general later, with lightning in the west at night. *Temperature* risen a little in our Islands and Norway, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 50° at Valencia and Jersey to 40° at Sumburgh Head. *Wind* strong to a gale from the Westward on our extreme south-west coasts, but Southerly or South-Easterly elsewhere, with severe gales in the west and south of England and the west of France. Gales extending later to our north and east coasts. *Sea* very high in the west, and rough on nearly all parts of our own and the French coasts. *Barometer* rising in Scandinavia and Denmark, but falling elsewhere—rapidly on our west coasts. Pressure highest over Spain, but relatively high over Central Europe, with a large depression off the west of Ireland, and a deep secondary disturbance over the St. George's Channel. Both systems moving northwards later, and barometer rising in west.	
		Wednesday, November 2. *Weather* fair generally, but showery in many parts of England and Ireland. Steady rain setting in later on our extreme west and south-west coasts. *Temperature* changed little and irregularly; readings over our Islands ranging at 8 a.m. from 52° at Jersey to 39° at Donaghadee. *Wind* Westerly on our western and southern coasts, but Southerly or South-Easterly in the north and east; moderate to strong in force generally, with gales in the north and east of Scotland. Fresh or strong southerly gales experienced in most places at night. Subsequently backing to the Southward on our western coasts, and increasing to a fresh gale. *Sea* very high at Wick, high at Aberdeen, and rough on nearly all parts of our coasts. *Barometer* falling over Germany, Netherlands, and the south-east of England, but rising elsewhere. Pressure highest in Spain, and relatively high in Sweden, with a depression to the westward of Scotland. New and deep depression approaching our south-west coasts later, and barometer falling quickly in west.	
		**Thursday, November 3.** *Weather* fine in the east of Scotland and the north and east of England, as well as in South Germany and the east of France, but squally and showery elsewhere. Squalls and rain occurring generally later, with thunder and lightning in the south of England. *Temperature* fallen slightly on our western and northern coasts, but risen elsewhere; readings over our Islands ranging at 8 a.m. from 55° at Jersey to 39° at Parsonstown. *Wind* strong to a gale from West on our southern coasts, from South-West or South in the east, and from South-East in the north. Gales moderating later on all but our southern coasts, and wind veering to the North-Westward in Ireland. *Sea* very high off the north of Scotland, and rough or high on all other coasts. *Barometer* falling generally. Pressure high both over Spain and Northern Europe, with centre of a deep depression off the west of Scotland. Barometer below 29·0 ins. in all parts of the United Kingdom. Subsidiary disturbance appearing over England later, but barometer rising on our western and northern coasts.	
		**Friday, November 4.** *Weather* dull and rainy in the west and north of England, and also in the east and south of France, but fair in most other localities. Showers falling generally later. *Temperature* fallen a little over the eastern parts of Great Britain, but risen elsewhere; readings over our Islands ranging from 53° at Jersey to 34° at Aberdeen. *Wind* fresh from North-West on our western coasts, but moderate to strong from South-West in the south and east, and from South-East on the eastern shores of the North Sea. Subsequently veering to the Westward on our south-east coast. *Sea* very high at Pembroke, and rough in the west and south generally. *Barometer* rising at all but the Scandinavian stations. Pressure still high both in Spain and Northern Europe, with a large and irregularly formed area of low pressure over Scotland and the north of England. Low pressure system subsequently moving eastwards, and becoming shallower.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, November 5.** *Weather* fair on the whole, but foggy in Sweden; showery in the north of our Islands, and dull on our extreme south-west coasts. Rain falling later at all our more western and southern stations. *Temperature* risen slightly in Scotland and Norway, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 53° at Jersey to 38° at Parsonstown. *Wind* moderate from the Southward on our western coasts, but Westerly in the east and South-Easterly or Southerly on the eastern shores of the North Sea. Subsequently increasing to fresh gale from South on our western and southern coasts. *Sea* rather rough in the Bay of Biscay and at the mouth of the Channel, but moderate to smooth elsewhere. *Barometer* rising at all but our extreme western stations. Pressure highest in Spain and lowest in Scotland, but depression approaching the Irish coasts. Secondary disturbance appearing later over the St. George's Channel, and barometer falling at all our western and southern stations.	
		**Sunday, November 6.** *Weather* fine over the south-eastern and midland counties of England, but cloudy elsewhere, with rain in many places. *Temperature* risen a little in the extreme north, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 50° at Prawle Point and Jersey to 40° at Oxford and 39° at Parsonstown. *Wind* moderate to strong from North-East on our northern coasts, but South-Westerly or Southerly in the south and South-Easterly on the eastern shores of the North Sea. Subsequently backing to South-East in the south-east of England. *Sea* rough over the Bay of Biscay, as well as at the mouth of the Channel and on our extreme north-west coasts. *Barometer* falling a little over England and the Netherlands, but rising elsewhere. Pressure highest over Spain, but relatively high over the Baltic, with a small depression near the mouth of St. George's Channel. Depression subsequently moving south-eastwards, and barometer falling slightly in France.	
		**Monday, November 7.** *Weather* fine in the south and south-east of England, as well as in the Netherlands and north of Scandinavia, but cloudy elsewhere, with rain at several of our northern stations. Rain falling generally later. *Temperature* risen a little in the west and north of our Islands, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 50° at Scilly to 36° at Cambridge. *Wind* Easterly or North-Easterly in our Islands, Scandinavia, and the north of France; strong to a gale in force on all our more northern coasts. Strong from South-West in the south of France, and light from South-East over Germany and the Netherlands. *Sea* rough on our north and north-east coasts, as well as at the mouth of the Channel and in the Bay of Biscay. *Barometer* rising at all but the French stations. Pressure high in a band extending from the north of Scandinavia to the northward of our Islands, with a depression over the north of France. Depression filling up gradually later, and barometer rising generally.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⟹ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	49	39	47·6	41·9	44·8	+ 1·4	20	0	4	0·53	−0·45	*	*
	Stornoway	49	33	48·0	39·7	43·9	+ 0·9	23	6	7	1·13	+0·03	2	3
	Wick	50	28	48·1	39·1	43·6	+ 0·8	23	8	5	0·91	+0·14	*	*
	Lairg $	49	32	46·4	37·0	41·7	+ 0·4	12	21	7	1·07	+0·15	*	*
	Glencarron $	50	34	46·7	38·0	42·4	+ 1·0	20	11	7	2·14†	?	3	5
	Fort Augustus $	50	34	48·8	40·7	44·8	+ 2·0	25	4	7	0·79†	?	*	*
1. SCOTLAND, E.	Nairn	52	32	49·0	38·7	43·9	+ 1·5	27	9	4	0·42	−0·11	*	*
	Aberdeen	50	31	48·1	38·3	43·2	+ 0·4	24	10	7	1·38	+0·67	10	18
	Braemar $	47	29	45·0	34·2	39·6	+ 0·6	8	29	5	3·92	+3·02	7‡	11‡
	Ochtertyre $	54	30	50·0	38·4	44·2	+ 2·2	31	10	7	2·09	+1·08	*	*
	Leith	52	34	48·7	40·1	44·4	+ 1·9	25	5	6	1·62	+1·15	*	*
	Marchmont $	51	32	46·1	36·9	41·5	+ 1·5	11	21	6	2·28	+1·50	7	11
2. ENGLAND, N.E.	Alnwick Castle	48	36	46·7	40·3	43·5	+ 0·4	18	5	7	1·40	+0·69	*	*
	Durham	51	32	47·6	37·7	42·7	− 0·2	23	12	6	1·70	+1·01	10	16
	Shields	51	38	48·6	40·9	44·8	+ 0·8	24	3	6	1·05	+0·45	*	*
	Scarborough ℔												8‡	13‡
	York	53	35	50·3	38·9	44·6	+ 0·3	31	9	7	1·07	+0·54	12	19
	Spurn Head	51	38	49·0	41·9	45·5	+ 0·6	25	0	7	1·18	?	*	*
3. ENGLAND, E.	Hillington ℔	52	34	50·5	38·6	44·6	− 0·3	32	10	6	1·19	+0·53	29	45
	Yarmouth	52	36	49·3	41·4	45·4	− 0·1	26	2	7	1·09	+0·38	*	*
	Geldeston	56	34	52·0	38·9	45·5	− 0·1	38	9	7	0·82	+0·19	25	38
	Cambridge	56	34	52·6	37·9	45·3	+ 0·3	40	11	6	0·93	+0·44	31	48
	Rothamsted	54	34	51·5	37·7	45·3	+ 1·1	41	12	7	2·04	+1·39	*	*
	Ingatestone	55	36	50·9	39·8	45·4	+ 0·2	33	6	6	1·74	+1·11	19‡	29‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)												18‡	28‡
	Loughborough	56	36	51·7	39·7	45·7	+ 1·9	36	6	6	1·08	+0·50	*	*
	Leicester	56	36	51·1	39·5	45·3	+ 1·8	34	7	7	0·94	+0·39	22	34
	Cheadle ℔	51	36	49·2	37·9	43·6	+ 0·5	28	11	6	0·88	+0·11	*	*
	Churchstoke ℔	54	36	49·9	38·3	44·1	+ 0·8	30	10	6	1·89	+1·08	19	30
	Hereford ℔	54	37	51·9	38·7	45·3	+ 0·8	37	9	7	1·85	+1·25	*	*
	Cirencester	51	34	?49·6	?37·0	?43·3	−?0·9	?30	?14	7	1·44	+0·73	18	28
	Oxford	54	37	51·3	39·9	45·6	+ 1·1	34	6	6	1·02	+0·45	23	35
5. ENGLAND, S.	London	56	38	52·7	41·1	46·9	+ 1·6	38	3	6	2·00	+1·45	20‡	31‡
	Strathfield Turgiss ℔	55	29	51·6	37·5	44·6	− 0·4	37	13	7	2·16	+1·56	*	*
	Dungeness	54	41	52·6	44·1	48·4	+ 1·9	45	0	7	1·49	+0·69	*	*
	Hastings (St. Leonard's)	54	39	53·0	42·7	47·9	+ 1·4	41	0	7	2·28	+1·49	19	29
	Southampton	56	40	53·1	41·6	47·4	+ 0·7	39	1	7	3·04	+2·35	20	31
	Hurst Castle	54	42	52·9	43·9	48·4	+ 0·9	45	0	7	1·94	+1·24	*	*
	Stowell ℔	52	38	50·2	39·7	45·0	− 0·5	31	6	7	2·35	?	10‡	15‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	49	36	48·2	40·3	44·3	+ 0·2	23	5	7	1·18†	−0·90	*	*
	Glasgow	48	34	47·3	38·2	42·8	+ 1·1	22	11	6	1·27	+0·38	3	5
	Ardrossan	51	38	49·0	?40·3	?44·7	+?1·5	?26	?5	6	0·86	−0·09	*	*
	Glenlee	51	34	48·0	37·6	42·8	+ 0·9	24	12	7	3·13	?	*	*
	Douglas (Isle of Man)	53	40	50·4	42·7	46·6	+ 2·3	32	0	7	1·82	+0·79	24	38
7. ENGLAND, N.W.	Newton Reigny (Penrith)	51	34	46·5	37·4	42·0	− 0·7	13	13	7	1·66	+0·86	6	10
	Barrow-in-Furness	50	37	48·7	41·7	45·2	− 0·1	24	1	7	1·13	+0·19	*	*
	Stonyhurst	49	38	47·7	39·1	43·4	− 0·5	22	8	6	0·98	−0·17	11	17
	Blackpool ℔	50	39	48·1	40·8	44·5	− 1·4	23	3	7	1·36	+0·49	16	25
	Manchester	52	40	48·9	41·1	45·0	+ 0·5	25	3	7	0·80	−0·08	*	*
	Liverpool Obsr (Bidston)	52	39	49·6	41·1	45·4	− 0·4	28	3	7	0·81	+0·08	*	*
	Llandudno ℔	52	40	50·2	41·6	45·9	− 1·2	29	1	7	1·57	+0·73	8	13
	Holyhead	52	41	50·7	44·0	47·4	− 0·3	38	0	7	1·89	+0·95	*	*
8. ENGLAND, S.W.	Llandovery	53	36	51·1	39·0	45·1	− 0·9	34	8	7	3·04	+1·84	*	*
	Pembroke	52	40	51·1	42·7	46·9	− 1·1	34	0	7	2·55	+1·62	16	25
	Arlington (N. Devon)	52	34	49·3	39·7	44·5	− 0·9	27	6	7	3·75	+2·35	*	*
	Cullompton ℔	52	37	50·9	40·8	45·9	− 0·1	32	3	7	2·11	+1·27	13	20
	Falmouth	54	41	51·8	44·7	48·3	− 0·4	44	0	7	2·18	+0·91	26	39
	Plymouth	55	43	52·2	44·8	48·5	+ 0·5	46	0	7	1·93	+1·09	21	32
	Prawle Point	53	37	52·6	41·1	46·9	− 1·7	38	3	7	1·11	?	*	*
9. IRELAND, N.	Malin Head	50	38	48·7	40·7	44·7	− 0·2	24	4	7	1·92	?	*	*
	Londonderry	50	38	48·0	40·7	44·4	+ 0·2	22	4	7	1·96	+0·96	*	*
	Mullaghmore	53	40	49·7	41·4	45·6	+ 1·1	28	2	6	2·01	+0·92	*	*
	Belmullet	51	40	49·7	42·0	45·9	− 1·5	27	0	7	2·41	?	*	*
	Markree Castle	52	32	48·6	38·6	43·6	− 0·2	25	10	7	2·64	+1·80	12	19
	Brookeborough	51	33	48·0	37·7	42·9	− 0·2	24	12	6	2·18	?	*	*
	Armagh	54	37	49·4	38·4	43·9	− 0·1	28	10	6	1·71	+1·06	19	30
	Donaghadee	52	34	50·0	38·4	44·2	− 1·8	31	10	6	1·37	+0·62	*	*
	Edgeworthstown	51	33	48·3	37·7	43·0	− 0·8	25	12	7	2·26	+1·46	*	*
10. IRELAND, S.	Dublin	51	40	49·6	41·6	45·6	+ 0·2	27	1	6	1·74	+1·14	26	41
	Parsonstown	51	37	49·9	39·3	44·6	+ 0·5	30	8	7	1·29	+0·61	20	31
	Kilkenny	58	33	55·6	37·7	46·7	+ 2·2	51	12	6	1·12	+0·49	*	*
	Waterford	53	34	50·9	39·0	45·0	− 2·3	34	8	6	1·26	+0·33	*	*
	Roche's Point	53	40	51·4	42·4	46·9	− 1·1	34	0	7	1·32	+0·32	*	*
	Valencia	54	42	51·7	43·9	47·8	− 1·2	41	0	7	2·09	+0·79	13	20
	Killarney	53	34	50·6	41·1	45·9	− 1·5	31	3	7	1·89	?	*	*
	Foynes	51	37	49·9	40·7	45·3	+ 0·3	29	4	6	1·36	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	54	42	52·7	45·1	48·9	− 1·9	48	0	7	1·72	+0·84	*	*
	Jersey (Noirmont)	55	44	53·7	47·3	50·5	+ 1·0	60	0	7	1·76	+0·77	16	24

Stations marked ℔ are in connection with the Royal Meteorological Society, and those marked $ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Glencarron, Fort Augustus, and Laudale being so much greater than that at the other stations in "Scotland, N." and "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in those districts.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' Bright Sunshine Recorder is used. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S. SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, 6, NORTH BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. IV. No. 45.] *Second Series.* WEEK ENDING MONDAY, 14TH NOVEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 180.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	52	26	42·6	35·9	39·3	2 below.	2	−13	22	+ 1	1886	+ 45	634	+ 62
	1. SCOTLAND, EAST	49	23	42·8	36·1	39·4	1 below.	2	−14	21	− 3	2422	+ 80	685	+ 75
	2. ENGLAND, N.E.	50	32	44·9	40·7	42·9	1 above.	12	− 6	4	−19	2450	− 68	623	+ 97
	3. ENGLAND, EAST	51	33	46·3	40·8	43·6	0 (average).	16	− 5	3	−16	2757	−137	756	+205
	4. MIDLAND COUNTIES	52	34	45·1	39·8	42·5	0 (average).	13	− 7	6	−17	2748	−106	769 *	+208
	5. ENGLAND, SOUTH	53	33	47·0	41·3	44·1	0 (average).	18	− 9	2	−12	2950	−193	596	+193
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	51	30	45·3	37·6	41·5	0 (average).	9	−12	18	+ 1	2395	− 77	523	+ 83
	7. ENGLAND, N.W.	52	32	45·2	40·7	43·0	1 below.	12	−11	4	−11	2558	− 78	534	+121
	8. ENGLAND, S.W.	53	29	47·1	39·8	43·5	2 below.	20	−16	6	− 1	2902	−129	446	+202
	9. IRELAND NORTH	53	28	46·2	38·9	42·6	1 below.	17	− 7	9	− 5	2680	+118	406	+ 22
	10. IRELAND, SOUTH	53	26	47·9	38·6	43·3	2 below.	23	−10	10	−11	3045	+131	373	+109
	— CHANNEL ISLANDS	57	37	50·4	44·0	47·2	2 below.	36	−12	0	0	3237	− 94	170	+ 77

Rainfall. **Bright Sunshine.**

	DISTRICTS. (See p. 180.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	3	1	8 less. †	201	+ 5	33·7	− 4·1 †	12	22	953	−217	23	− 6
	1. SCOTLAND, EAST	4	4	4 less.	152	−14	21·4	− 6·7	5	9	1324	− 7	32	− 1
	2. ENGLAND, N.E.	6	6	1 less.	143	−17	17·4	− 6·8	1	2	1313	+102	32	+ 2
	3. ENGLAND, EAST	5	6	1 less.	136	−29	16·9	− 5·7	4	7	1617	+144	40	+ 3
	4. MIDLAND COUNTIES	4	4	3 less.	122	−38	17·1	− 8·5	2	4	1470	+153	37	+ 4
	5. ENGLAND, SOUTH	5	5	2 less.	122	−31	18·2	− 5·9	4	6	1609	+196	40	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	1	less than ½	9 less.	151	−27	31·3	− 8·0	2	2	1428	+154	35	+ 4
	7. ENGLAND, N.W.	2	less than ½	8 less.	132	−35	20·9	− 9·8	1	1	1459	+187	36	+ 4
	8. ENGLAND, S.W.	4	4	7 less.	128	−48	22·8	−14·7	13	21	1843	+323	46	+ 8
	9. IRELAND, NORTH	1	1	8 less.	154	−44	27·3	− 3·8	8	14	1309	+118	32	+ 3
	10. IRELAND, SOUTH	2	1	7 less.	129	−55	23·2	−10·9	9	15	1615	+251	40	+ 6
	— CHANNEL ISLANDS	5	10	0 (average).	144	−46	20·2	− 8·5	22	34	2008	+209	50	+ 5

General Remarks.

Weather has been very cloudy or dull over the whole country. During the earlier days of the period the conditions over England were rainy, but at most of the Irish and Scotch stations scarcely any rain fell until the week drew towards its close.

Temperature has been slightly above the mean in "England, N.E.", but in other districts it has either been 1° or 2° below, or about equal to its normal value. The highest of the maxima, which were generally recorded on the 8th, ranged from 49° in "Scotland, E." to 57° in the "Channel Islands". The lowest of the minima were registered in most places on the 14th, when the thermometer fell to between 23° and 30° in Ireland and Scotland, and to between 29° and 34° over England.

Rainfall has equalled the mean in the "Channel Islands", but in all other districts it has been less. In Ireland and Scotland the fall has been very slight.

Bright sunshine has been very deficient in all districts. The percentage of the possible amount of duration over England and the greater part of Scotland ranged from 1 to 9, and that over Ireland and in "Scotland, N." from 14 to 22. In the "Channel Islands" the percentage was 34.

Depressions observed.—At the commencement of the week the depression noticed in the report of last week as having travelled to the north of France from the St. George's Channel, recurved and disappeared from our coasts in a westerly direction. This disturbance was followed by another, which moved slowly from the Netherlands to our south-east coasts, and subsequently in a south-westerly and southerly direction, dispersing over France on the 11th. The only other depression which influenced our winds and weather during this period travelled east-north-eastwards and north-eastwards from Portugal to France and Germany on the 13th and 14th. Moderate to strong Easterly to North-Easterly winds were experienced over our Islands during the greater part of the week, but towards its close they became light and somewhat more variable in direction.

* This value has been altered slightly owing to the receipt of further information.

† See page 179.

A 52505. 350.—11/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

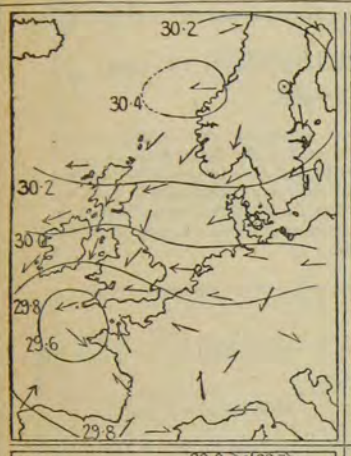
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, November 8.

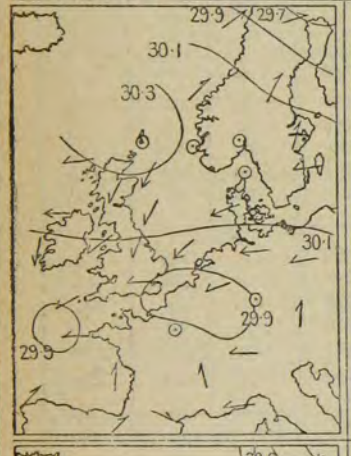
Weather fine in Scandinavia and the south of France, but cloudy or overcast elsewhere, with showers at some of our western and northern stations. Steady rain setting in over the east of England later.

Temperature risen a little in our Islands, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 50° at Donaghadee, Pembroke, Valencia, and Scilly to 44° in the Shetlands.

Wind Easterly or North Easterly over our Islands and the North Sea; strong in force at several of our northern stations. Moderate North-Westerly in the north-west of France, and light South-Easterly in the east of that country.

Sea high at Aberdeen, rough in the north and east generally, and rather rough at Holyhead and Prawle Point.

Barometer rising generally. Pressure high off the west of Norway, but centre of well-marked depression lying near the mouth of the English Channel. Depression subsequently moving westwards, and barometer continuing to rise generally.



Wednesday, November 9.

Weather fair in Sweden, Denmark, France, and the west of our Islands, but dull elsewhere, with rain and fog over England. Rain continuing in east and south-east all day. Aurora seen in north of Scotland at night.

Temperature fallen slightly in most places; readings over our Islands ranging at 8 a.m. from 50° at Scilly to 40° in the Shetlands. Frost occurring in north of Scotland at night.

Wind moderate to strong from East or North-East over the United Kingdom and the North Sea, but South-Westerly in the north of Scandinavia and Southerly in the south-west of France. Subsequently backing to the Northward on our east coasts.

Sea rather rough on the east coasts of Great Britain.

Barometer falling briskly in Scandinavia, but rising elsewhere. Anticyclone lying over and to the northward of Scotland. Depression of previous day now passing away towards Atlantic, but new disturbance lying over the Netherlands. Slight fall taking place on our east coasts later.

Thursday, November 10.

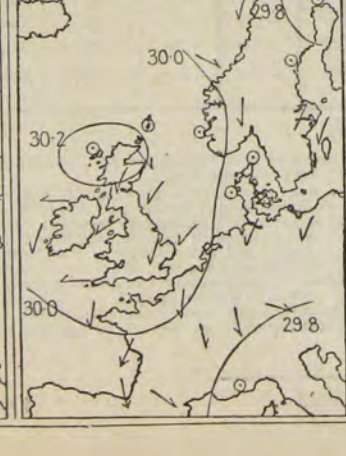
Weather fair at several of our western stations as well as in Sweden and the south of France, but dull elsewhere, with rain over Central and South-Eastern England, and fog in Germany. Some improvement taking place in south-east later.

Temperature fallen a little in most places; readings over our Islands ranging at 8 a.m. from 51° at Scilly to 38° at Nairn and 37° at Parsonstown.

Wind light or moderate from the North-Eastward over the greater part of our Islands and the North Sea, but North-Westerly in the north-west of France, and South-Easterly in Belgium.

Sea rather rough at Spurn Head, but moderate to smooth elsewhere.

Barometer falling at all but the northern Scandinavian stations. Large area of high pressure lying over Scandinavia and to the northward of our Islands, with shallow depression over the eastern part of the Channel. Depression subsequently moving slowly westwards, and barometer rising again in south-east of England.



Friday, November 11.

Weather fine in Sweden, Denmark, the west of our Islands, and the north and east of England, but dull elsewhere, with fog over the Netherlands, and rain in Germany and the south of France. Showers falling later in the east and south-east.

Temperature fallen slightly; readings over our Islands ranging at 8 a.m. from 48° at Jersey to 38° at Valencia.

Wind calm in Scandinavia and Westerly over the southern parts of France and Germany, but North-Easterly elsewhere; light or moderate in force generally.

Sea moderate to smooth.

Barometer rising in our Islands, but falling at most of the Continental stations. Anticyclone lying over the north of our Islands. Shallow depression of previous day moving southwards over France, but new disturbance lying over Germany. Both systems dispersing later, and barometer rising at all but the Scandinavian stations.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Saturday, November 12.

Weather fine in Sweden and Denmark as well as at many of our western and southern stations, but dull elsewhere, with fog or mist over England, and rain or snow in the west of Norway. Showers falling later at some of our northern stations.

Temperature fallen generally; readings over our Islands ranging at 8 a.m. from 49° at Scilly to 37° at Aberdeen and Parsonstown. Frost occurring at night over the north of Scotland, and also over central Ireland.

Wind light North-Westerly over Scotland and the eastern shores of the North Sea, but North-Easterly or Easterly at our southern and the French stations.

Sea moderate at Scilly, but slight or smooth elsewhere.

Barometer rising at all but our northern and the Scandinavian stations. Anticyclone lying over our Islands, with shallow depressions over Finland, the north-west of Spain, and the Gulf of Genoa. No important change later.

Sunday, November 13.

Weather fine in Sweden, Denmark, and the east of France, as well as at some of the Irish and Scotch stations, but dull elsewhere, with fog or mist in many parts of our Islands. Rain falling at night in the extreme south of England.

Temperature fallen generally; readings over our Islands ranging at 8 a.m. from 48° at Scilly to 27° at Parsonstown. Frost occurring in the north of Scotland at night.

Wind light North-Westerly over the east coasts of Great Britain and the eastern shores of the North Sea, but Easterly at our southern and the French stations. Wind freshening in south later.

Sea moderate at Yarmouth, but slight or smooth elsewhere.

Barometer falling at all but the German and southern French stations. Band of high pressure extending from the Adriatic to the west of our Islands, with a depression over Finland, and another off the north-west of Spain. Latter disturbance subsequently advancing eastwards, and barometer falling briskly over France and the south of England.

Monday, November 14.

Weather fair at several of our western stations, and also in Scandinavia and Denmark, but dull elsewhere, with snow at Sumburgh Head and Aberdeen, and passing showers at several of our eastern stations. Showers falling later in many parts of the Kingdom.

Temperature fallen at all but the French stations; readings over our Islands ranging at 8 a.m. from 47° at Scilly to 30° at Sumburgh Head. Sharp frost occurring at night over the inland parts of the Kingdom.

Wind light or moderate from North or North-East over Scandinavia, Denmark, and our Islands, but strong from North-West in the west of France, and light from South-East in Germany. Subsequently freshening from the South-Eastward on our extreme north-west coasts.

Sea rough at Yarmouth and Cape Grisnez, but moderate to smooth elsewhere.

Barometer falling at all but the Scandinavian and western French stations. Pressure relatively high over Ireland, and also to the northward of our Islands, with a well defined depression over central and eastern France. Depression subsequently moving eastwards, and barometer rising on all but our extreme south west coasts.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

RAINFALL—SCOTLAND, N.—Table showing the differences (1) between the weekly values for Rainfall in this District and the corresponding Means for the same Periods; and (2) between the Aggregate Falls in the same District from the beginning of Year to the end of each Week, and the corresponding Means for the Twenty Years 1866-1885.

Date of Report.	(1.) More or less than the Mean for the Week.	(2.) Difference from the Mean since Jan. 4, 1887.	Date of Report.	(1.) More or less than the Mean for the Week.	(2.) Difference from the Mean since Jan. 4, 1887.	Date of Report.	(1.) More or less than the Mean for the Week.	(2.) Difference from the Mean since Jan. 4, 1887.	Date of Report.	(1.) More or less than the Mean for the Week.	(2.) Difference from the Mean since Jan. 4, 1887.
Jan. 10	6 more.	+ 0·5	Mar. 28	1 more.	− 0·8	June 13	6 more.	− 0·9	Aug. 29	2 less.	− 2·1
„ 17	1 less.	+ 0·4	Apr. 4	1 „	− 0·7	„ 20	5 less.	− 1·4	Sept. 5	5 more.	− 1·7
„ 24	2 more.	+ 0·6	„ 11	4 less.	− 1·0	„ 27	6 „	− 1·9	„ 12	5 „	− 1·2
„ 31	1 „	+ 0·7	„ 18	3 „	− 1·4	July 4	3 „	− 2·3	„ 19	3 less.	− 1·5
Feb. 7	3 „	+ 1·0	„ 25	10 more.	− 0·4	„ 11	3 more.	− 1·9	„ 26	7 „	− 2·1
„ 14	6 less.	+ 0·4	May 2	0 (average).	− 0·4	„ 18	1 less.	− 2·1	Oct. 3	7 „	− 2·8
„ 21	1 „	+ 0·2	„ 9	1 less.	− 0·5	„ 25	3 more.	− 1·8	„ 10	2 more.	− 2·6
„ 28	2 more.	+ 0·5	„ 16	3 „	− 0·8	Aug. 1	2 „	− 1·6	„ 17	3 less.	− 3·0
Mar. 7	7 less.	− 0·2	„ 23	1 more.	− 0·7	„ 8	3 „	− 1·4	„ 24	2 „	− 3·2
„ 14	2 „	− 0·4	„ 30	4 less.	− 1·2	„ 15	3 less.	− 1·7	„ 31	1 „	− 3·2
„ 21	5 „	− 0·9	June 6	4 „	− 1·5	„ 22	2 „	− 1·9	Nov. 7	0 (average).	− 3·3

The above are the revised values referred to in the Weekly Weather Report, No. 44, 1887, in a note at bottom of p. 173.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	46	27	41·0	36·0	38·5	− 3·9	0	25	4	0·06	−0·93	*	*
	Stornoway	48	31	44·6	37·1	40·9	− 2·1	7	19	2	0·15	−0·94	14	25
	Wick	52	29	43·4	36·7	40·1	− 1·6	4	20	4	0·14	−0·55	*	*
	Lairg	45	26	40·8	33·1	37·0	− 3·6	0	35	3	0·10	−0·82	*	*
	Glencarron	47	28	41·9	34·5	38·2	− 1·9	0	27	3	0·16†	?	10	18
	Fort Augustus	49	32	43·8	37·7	40·8	− 0·4	5	17	3	0·06†	?	*	*
1. SCOTLAND, E.	Nairn	48	34	42·7	36·7	39·7	− 1·3	2	19	4	0·37	−0·16	*	*
	Aberdeen	48	34	44·7	38·9	41·8	+ 0·5	8	13	4	0·14	−0·61	5	9
	Braemar	43	23	40·0	30·7	35·4	− 2·1	0	46	?2	?0·27	?−0·63	10‡	18‡
	Ochtertyre	49	25	44·0	32·0	38·0	− 2·7	6	36	3	0·17	−0·83	*	*
	Leith	47	36	43·9	40·0	42·0	+ 0·5	5	6	4	0·27	−0·21	*	*
	Marchmont	46	33	41·4	38·0	39·7	+ 0·9	0	16	6	1·13	+0·34	0	0
2. ENGLAND, N.E.	Alnwick Castle	46	32	43·4	38·9	41·2	− 0·4	4	12	5	0·86	+0·11	*	*
	Durham	48	33	43·4	39·3	41·4	− 0·1	4	11	6	0·75	+0·06	0	0
	Shields	48	35	44·9	40·7	42·8	0·0	11	4	5	0·97	+0·36	*	*
	Scarborough	49	38	45·4	41·5	43·5	+ 1·0	13	1	6	0·37	−0·35	2‡	3‡
	York	50	35	45·7	41·1	43·4	+ 0·9	14	3	5	0·28	−0·23	1	2
	Spurn Head	50	39	46·6	42·9	44·8	+ 1·4	20	0	6	0·32	?	*	*
3. ENGLAND, E.	Hillington	51	37	46·4	40·8	43·6	+ 0·6	16	3	6	0·32	−0·32	7	11
	Yarmouth	48	38	45·9	42·3	44·1	+ 0·4	15	0	6	0·53	−0·21	*	*
	Geldeston	51	37	46·8	41·0	43·9	− 0·1	18	3	6	0·78	+0·13	3	5
	Cambridge	49	34	46·4	39·0	42·7	− 0·1	18	8	4	0·52	−0·05	1	2
	Rothamsted	50	33	45·8	39·9	42·9	+ 0·8	15	6	4	0·67	−0·02	*	*
	Ingatestone	50	38	46·5	41·8	44·2	+ 0·8	16	1	4	0·72	+0·14	5‡	8‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	52	36	45·6	40·1	42·9	− 0·5	14	5	6	0·35	−0·17	1‡	2‡
	Loughborough	52	37	46·1	40·4	43·3	+ 1·2	16	4	4	0·32	−0·23	*	*
	Leicester	51	36	46·0	41·1	43·6	+ 1·6	15	3	6	0·45	−0·09	2	3
	Cheadle	48	34	44·1	39·2	41·7	0·0	6	12	3	0·14	−0·61	*	*
	Churchstoke	48	34	43·3	38·2	40·8	− 0·6	4	15	3	0·56	−0·26	0	0
	Hereford	51	36	45·2	40·4	42·8	− 0·1	12	4	3	0·07	−0·50	*	*
	Cirencester	48	34	44·0	39·0	41·5	− 0·6	6	12	4	0·42	−0·29	3	5
	Oxford	52	35	46·3	40·0	43·2	+ 0·7	17	6	4	0·56	+0·01	5	8
5. ENGLAND, S.	London	50	39	46·9	42·7	44·8	+ 1·3	20	0	5	0·61	+0·11	2‡	3‡
	Strathfield Turgiss	51	37	47·1	41·1	44·1	+ 0·8	18	3	4	0·44	−0·15	*	*
	Dungeness	53	39	48·0	43·6	45·8	+ 0·8	27	0	6	1·01	+0·19	*	*
	Hastings (St. Leonard's)	53	39	47·1	42·2	44·7	− 0·3	19	0	6	0·76	0·00	5	8
	Southampton	53	35	47·7	40·4	44·1	− 0·4	21	4	4	0·32	−0·36	5	8
	Hurst Castle	51	34	47·1	40·3	43·7	− 2·1	19	5	3	0·16	−0·53	*	*
	Stowell	50	33	44·8	38·6	41·7	− 2·1	8	14	6	0·37	?	2‡	3‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	50	30	45·3	35·4	40·4	− 2·4	9	26	2	0·02†	−2·16	*	*
	Glasgow	49	31	45·3	36·9	41·1	+ 0·5	9	20	1	0·02	−0·86	0	0
	Ardrossan	50	32	45·6	38·6	42·1	+ 0·1	15	10	0	—	−0·93	*	*
	Glenlee	50	30	44·2	36·4	40·3	+ 0·3	6	21	3	0·03	?	*	*
	Douglas (Isle of Man)	51	30	46·2	40·8	43·5	+ 0·3	16	3	1	0·10	−0·95	3	5
7. ENGLAND, N.W.	Newton Reigny (Penrith)	49	32	43·7	37·3	40·5	− 1·0	5	18	1	0·01	−0·79	1	2
	Barrow-in-Furness	52	38	46·1	41·7	43·9	− 0·1	15	1	1	0·03	−0·88	*	*
	Stonyhurst	48	35	44·2	39·4	41·8	− 0·6	6	11	1	0·02	−1·08	1	2
	Blackpool	50	37	45·3	41·0	43·2	− 1·7	13	3	1	0·04	−0·77	0	0
	Manchester	50	36	44·8	40·6	42·7	− 0·4	11	4	3	0·03	−0·84	*	*
	Liverpool Obsy (Bidston)	51	38	45·1	41·1	43·1	− 1·3	11	3	2	0·07	−0·62	*	*
	Llandudno	50	38	45·8	41·6	43·7	− 2·2	14	1	1	0·01	−0·80	0	0
	Holyhead	51	39	46·7	43·0	44·9	− 1·7	20	0	2	0·11	−0·79	*	*
8. ENGLAND, S.W.	Llandovery	52	29	46·4	36·9	41·7	− 3·4	12	21	4	0·19	−0·98	*	*
	Pembroke	51	37	47·3	41·9	44·6	− 1·6	19	0	1	0·04	−0·88	15	24
	Arlington (N. Devon)	50	32	45·0	38·9	42·0	− 1·7	8	9	4	0·27	−1·15	*	*
	Cullompton	51	31	46·1	39·0	42·6	− 2·2	17	8	6	0·33	−0·47	3	5
	Falmouth	52	34	47·9	41·2	44·6	− 2·5	22	2	3	0·31	−0·96	13	21
	Plymouth	52	34	48·4	40·9	44·7	− 2·0	24	3	4	0·49	−0·34	22	35
	Prawle Point	53	37	48·3	39·9	44·1	− 2·8	24	6	3	0·96	?	*	*
9. IRELAND, N.	Malin Head	50	41	45·9	42·1	44·0	+ 0·2	14	0	3	0·10	?	*	*
	Londonderry	51	33	46·1	38·4	42·3	− 0·8	17	10	1	0·01	−1·00	*	*
	Mullaghmore	53	35	47·7	41·1	44·4	+ 0·6	21	3	0	—	−1·12	*	*
	Belmullet	51	39	46·7	42·3	44·5	− 1·8	18	0	2	0·76	?	*	*
	Markree Castle	51	30	46·6	35·5	41·1	− 1·8	13	26	2	0·03	−0·79	9	15
	Brookeborough	50	28	45·1	35·6	40·4	− 1·7	9	25	0	—	?	*	*
	Armagh	52	33	45·7	35·9	40·8	− 2·2	10	24	0	—	−0·65	7	12
	Donaghadee	52	39	46·9	43·1	45·0	+ 0·6	21	0	3	0·09	−0·65	*	*
	Edgeworthstown	50	30	44·7	36·4	40·6	− 2·1	8	22	1	0·03	−0·80	*	*
10. IRELAND, S.	Dublin	51	38	47·4	42·6	45·0	+ 0·6	21	0	4	0·61	+0·06	1	2
	Parsonstown	52	26	46·0	36·1	41·1	− 1·9	11	24	0	—	−0·66	9	15
	Kilkenny	?	28	?	37·6	?	?	?	?	0	—	−0·61	*	*
	Waterford	52	37	47·6	40·4	44·0	− 2·0	21	4	3	0·07	−0·84	*	*
	Roche's Point	53	38	49·1	40·3	44·7	− 1·8	26	5	1	0·01	−1·03	*	*
	Valencia	53	35	51·0	39·9	45·5	− 2·4	33	6	1	0·15	−1·14	17	27
	Killarney	52	27	47·4	34·0	40·7	− 5·8	15	32	1	0·06	?	*	*
	Foynes	53	33	47·0	36·9	42·0	− 2·0	14	14	2	0·11	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	53	43	50·7	45·3	48·0	− 1·8	42	0	5	0·54	−0·34	*	*
	Jersey (Noirmont)	57	37	50·1	42·7	46·4	− 1·2	31	0	4	1·39	+0·40	22	34

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Glencarron, Fort Augustus, and Laudale being so much greater than that at the other stations in "Scotland, N." and "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in those districts.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S. SECRETARY.
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VOL. IV. No. 46.] *Second Series.* WEEK ENDING MONDAY, 21ST NOVEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 184.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	50	20	44·5	34·0	39·3	1 below.	7	− 5	30	+ 7	1893	+ 41	664	+ 72
	1. SCOTLAND, EAST	51	19	42·7	32·2	37·5	2 below.	2	−12	35	+ 8	2424	+ 69	720	+ 84
	2. ENGLAND, N.E.	46	22	40·5	30·7	35·6	5 above.	0	−16	45	+23	2450	− 83	668	+124
	3. ENGLAND, EAST	46	17	38·5	26·9	32·7	9 below.	0	−18	65	+43	2757	−152	821	+248
	4. MIDLAND COUNTIES	45	19	38·7	26·7	32·7	8 below.	0	−18	65	+38	2748	−121	834	+248
	5. ENGLAND, SOUTH	47	19	40·8	29·6	35·2	8 below.	0	−24	48	+30	2950	−214	644	+223
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	50	21	42·9	31·4	37·2	3 below.	3	−15	38	+18	2398	− 89	561	+101
	7. ENGLAND, N.W.	46	22	40·6	30·2	35·4	7 below.	0	−20	46	+29	2558	− 97	580	+153
	8. ENGLAND, S.W.	48	16	42·9	31·4	37·2	7 below.	3	−28	38	+29	2905	−158	484	+232
	9. IRELAND NORTH	48	21	42·9	32·6	37·8	5 below.	3	−18	34	+16	2683	+100	440	+ 40
	10. IRELAND, SOUTH	50	20	44·6	31·7	38·2	6 below.	7	−22	38	+24	3048 *	+103	411	+136
	— CHANNEL ISLANDS	49	31	46·4	38·8	42·6	5 below.	18	−25	9	+ 8	3255	−117	179	+ 85

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 184.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	8	1 less.	206	+ 5	34·5	− 4·2	9	16	962	−217	23	− 5
	1. SCOTLAND, EAST	4	4	4 less.	156	−14	21·8	− 7·0	11	20	1335	− 6	32	0
	2. ENGLAND, N.E.	3	2	5 less.	146	−18	17·6	− 7·2	11	19	1324	+105	32	+ 2
	3. ENGLAND, EAST	3	2	4 less.	139	−30	17·1	− 6·2	20	35	1637	+151	40	+ 3
	4. MIDLAND COUNTIES	2	2	4 less.	124	−40	17·3	− 9·0	15	26	1485	+155	36	+ 3
	5. ENGLAND, SOUTH	4	5	2 less.	126	−31	18·7	− 6·1	15	24	1624	+197	40	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	3	5	7 less.	154	−28	31·8	− 8·8	13	23	1441	+157	35	+ 4
	7. ENGLAND, N.W.	2	1	8 less.	134	−36	21·0	−10·6	17	30	1476	+193	36	+ 5
	8. ENGLAND, S.W.	3	7	4 less.	131	−40	23·5	−15·1	24	40	1867	+332	46	+ 8
	9. IRELAND, NORTH	4	4	4 less.	158	−44	27·7	− 4·3	13	22	1322	+115	32	+ 3
	10. IRELAND, SOUTH	4	8	0 (average).	133	−55	24·0	−11·0	23	39	1638	+258	40	+ 6
	— CHANNEL ISLANDS	5	10	1 more.	149	−46	21·2	− 8·5	27	44	2035	+214	50	+ 5

General Remarks.

Weather has been cloudy or dull generally, with a good deal of mist or fog at all our more southern stations. During the 18th, snow and sleet were experienced in the south-eastern districts, and towards the end of the week rain fell in most parts of the Kingdom.

Temperature has been below the mean; in Scotland the deficit ranged from 1° to 3° and in Ireland from 5° to 6°, while over the greater part of England the average temperature for the week was as much as 8° or 9° below the normal value for the season. The highest of the maxima, which were recorded on irregular dates, ranged from 45° in the "Midland Counties" to 50° or 51° over Scotland and in "Ireland, S." The lowest of the minima were generally recorded either on the 15th or 16th, when the thermometer fell to between 16° and 22° over England, and to between 19° and 22° over Ireland and Scotland; in the "Channel Islands" the minimum was 31°.

Rainfall has been rather more than the mean in the "Channel Islands" and equal to it in "Ireland, S.", but in most other districts it has been considerably less.

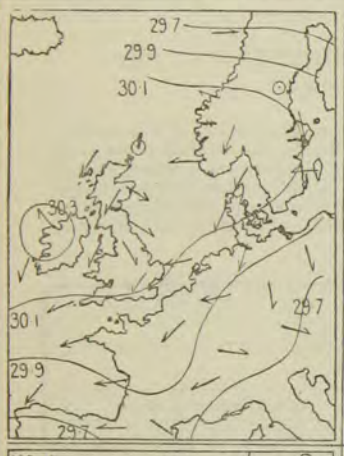
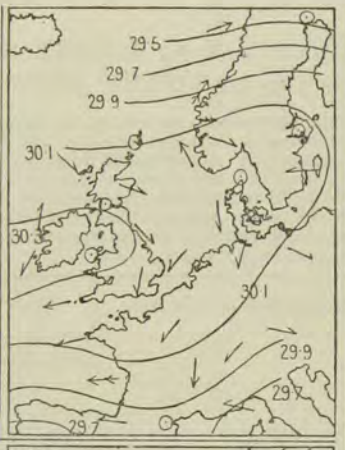
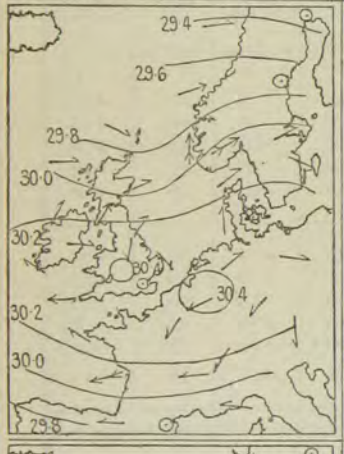
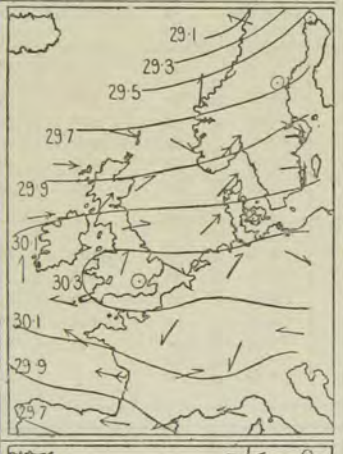
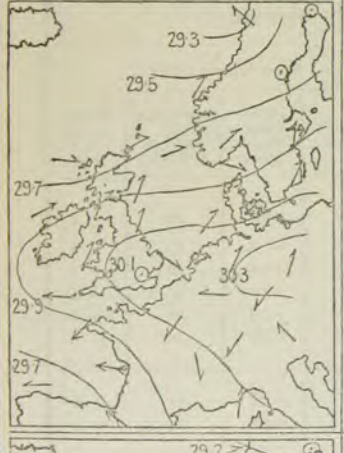
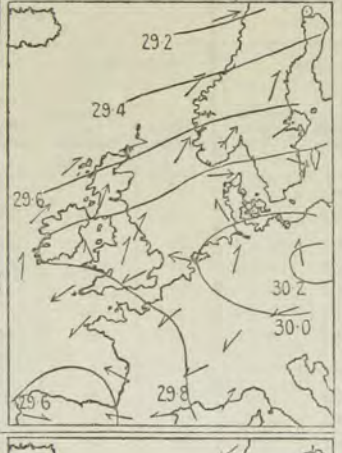
Bright sunshine shows an increase on that recorded last week, the percentage of the possible amount of duration ranging from 16 in "Scotland, N." to 35 in "England, E", 39 in "Ireland, S.", 40 in "England, S.W.", and 44 in the "Channel Islands". In London the percentage was only 7.

Depressions observed.—During the earlier part of the period an anticyclonic band travelled south-eastwards across Ireland and England to the Continent, and no depressions appeared in our immediate neighbourhood. By the 18th, however, a shallow depression from Spain had reached the Channel and the north of France, while another was moving south-eastwards over our north-western coasts. These depressions subsequently formed a large and very irregularly shaped area of low pressure over the United Kingdom and its vicinity, and as this dispersed, more shallow disturbances appeared over our western coasts from the Atlantic. The wind was generally Westerly over the northern districts and Easterly in the south during the first part of the period, but afterwards it became variable, though light airs between north and east were most prevalent.

* This value has been altered somewhat owing to the receipt of further information.

A 52587. 350.—11/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, November 15.** *Weather* cloudy and misty in France and South Germany, and showery in the south-east of England, but fair or fine elsewhere. Rain falling at night in the extreme north of Scotland. *Temperature* fallen several degrees; readings over our Islands ranging from 43° at Scilly to 28° at Ardrossan. Hard frost occurring at night over the central parts of England and Ireland; thermometer at Loughborough falling to 19° in the screen. *Wind* light and variable over the northern parts of Scandinavia and Scotland, but chiefly North-Easterly elsewhere; strong in force at the mouth of the Channel. Subsequently shifting to West or South-West in Scotland. *Sea* rather rough off the east of England, but moderate to smooth elsewhere. *Barometer* rising at all but the Scandinavian stations. Anticyclone lying over our western coasts, with depressions over Portugal, the Gulf of Genoa, and the north of Scandinavia. Anticyclone subsequently moving eastwards, but depression in extreme north growing somewhat deeper.	
		**Wednesday, November 16.** *Weather* dull and unsettled in Scandinavia, the north of our Islands, and the south of France, but fair or fine in most other localities. Thick fogs, however, reported over the inland parts of England. *Temperature* risen several degrees over Scandinavia and the north of our Islands, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 48° in the Shetlands and Hebrides to 20° at Loughborough. Maxima below 32° at some of the English stations, with hard frost again at night. *Wind* South-Westerly or Westerly in Scandinavia and the north of our Islands, but Easterly or North-Easterly at our southern and the French stations; strong to a gale in the south of Norway and west of France, but moderate elsewhere. *Sea* moderate to smooth. *Barometer* rising at all but the Scandinavian and Scotch stations. Broad anticyclonic band extending from North Germany to the south of Ireland, with depressions over Spain and the north of Scandinavia, and a subsidiary disturbance near the Shetlands. Anticyclone subsequently moving eastwards, and barometer falling generally.	
		**Thursday, November 17.** *Weather* dull at several of our northern stations as well as in the west of France, and foggy at Oxford and in London, but fair or fine elsewhere. Rain falling in north later, but weather in south improving. *Temperature* fallen in the Netherlands, the east of France, and the north of Scandinavia, but risen elsewhere; readings over our Islands ranging at 8 a.m. from 47° at Stornoway and Valencia to 19° at Oxford. Sharp frost occurring over England at night. *Wind* Easterly at our southern and the French stations, but South-Westerly elsewhere; strong in force over the Bay of Biscay and the north-west of our Islands. *Sea* rather rough on our north-west coasts, but moderate to smooth elsewhere. *Barometer* falling generally. Anticyclone now passing away over Germany, with depression to the northward of our Islands and also over Spain. Brisk fall taking place in the south of our Islands later, and depression over Spain moving north-eastward.	
		Friday, November 18. *Weather* fine at all our more western and northern stations, but dull elsewhere, with fog and rain in the south of England. Snow falling over our south-eastern districts later. *Temperature* fallen a little in the west and north of our Islands, and also on the eastern shores of the North Sea, but risen elsewhere; readings over the United Kingdom ranging from 45° at Stornoway, Wick, Valencia, and Scilly to 27° at York. Frost occurring over England at night. *Wind* South-Westerly on our northern coasts, and South-Easterly over Germany, the Netherlands, and the eastern shores of the North Sea, but North-Westerly at the mouth of the Channel; strong in force on our extreme north-west coasts. *Sea* rough at Stornoway and rather rough at Scilly. *Barometer* falling generally. Pressure highest over Central Europe, with a depression off the north west of Scotland, and another over the eastern parts of the Channel. Latter disturbance subsequently moving north-eastwards, and barometer rising in west of France.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

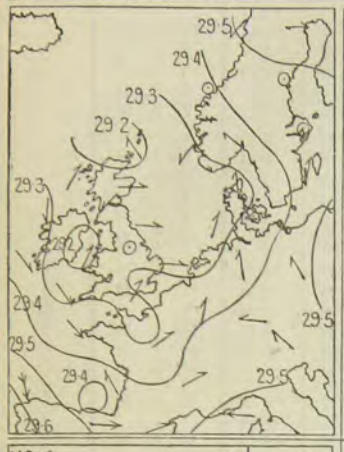
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Saturday, November 19.

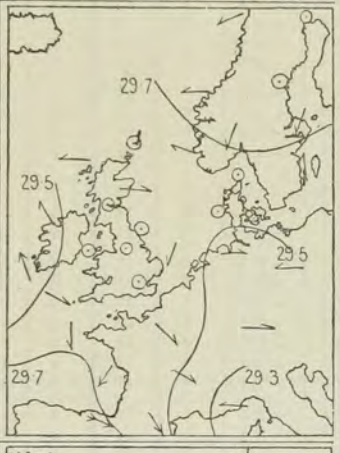
Weather fine over England and the north-west of France (with local fogs) but cloudy and showery in most other localities. Rain falling generally later, with thunder and lightning in the south-west at night.

Temperature risen in the west and south-west, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 47° at Valencia and Scilly to 26° at York. Frost occurring over the central parts of England and Ireland at night.

Wind fresh North-Westerly on our extreme west and south-west coasts, but light Southerly or South-Easterly elsewhere. Subsequently veering to the Northward in the west and blowing strongly.

Sea rough in the south-west, but moderate to smooth elsewhere.

Barometer falling at all but our northern stations. Pres- highest in Spain, but relatively high in the north of Scandinavia. Well defined depression lying over the Irish Sea, with other shallow disturbances over the Bay of Biscay, the Channel, and the North Sea. Depression in west subsequently moving southwards, and barometer rising in north.



Sunday, November 20.

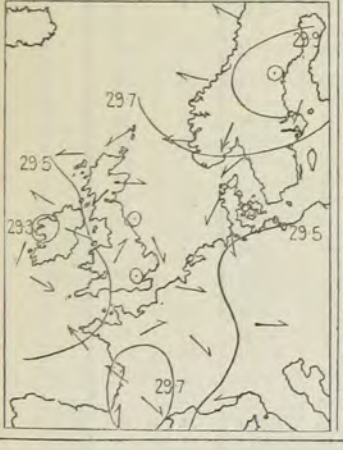
Weather fine at several of our western stations, but cloudy or overcast elsewhere, with fog or mist over England and rain in the south of France. Subsequently becoming dull in the west of Ireland.

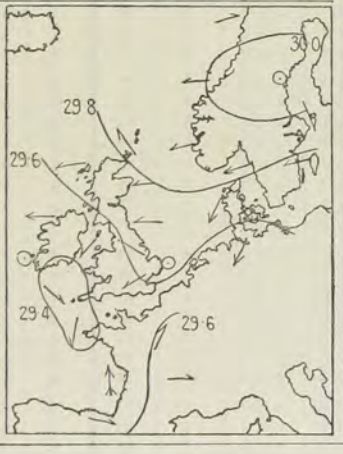
Temperature risen in the north and east, but fallen elsewhere: readings over our Islands ranging at 8 a.m. from 47° at Scilly to 27° at Parsonstown. Frost occurring over England at night.

Wind light North-Westerly in Scotland and Northerly over the greater part of England, but fresh North-Easterly over the Bay of Biscay and at the mouth of the Channel. Subsequently freshening from South-South-East in the west of Ireland.

Sea rough at Scilly, but slight or smooth elsewhere.

Barometer rising at all but the southern French stations. Pressure highest in Portugal, with shallow depressions over France, Germany, and the eastern shores of the North Sea. Depression appearing off west of Ireland in evening, and barometer falling on our western coasts.





Monday, November 21.

Weather fair in the north but dull elsewhere, with fog over England and the south of Denmark, and rain at several of our western stations.

Temperature fallen in most places; readings over our Islands ranging from 47° at Scilly to 31° at Aberdeen and 20° at Oxford. Frost occurring over England at night.

Wind fresh or strong from the South-Eastward on the west coasts of our Islands and France, but variable on our east coasts, and Easterly over the southern parts of Scandinavia.

Sea rough in the Bay of Biscay, and also at the mouth of the Channel, but moderate to smooth elsewhere.

Barometer falling briskly on our west coasts, but rising in all other localities. Pressure highest in Sweden, but relatively high over Spain, with two small depressions over and to the southward of Ireland. Depressions subsequently moving south-eastwards, and barometer rising on our western coasts.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 181 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	48	28	45·7	36·7	41·2	− 0·3	10	21	7	1·16	+0·17	*	*
	Stornoway	50	29	46·3	36·0	41·2	+ 0·2	12	24	6	1·07	−0·01	11	21
	Wick	49	24	46·0	33·6	39·8	− 0·9	11	32	5	0·76	+0·07	*	*
	Lairg ⚓	48	22	42·5	32·1	37·3	− 2·0	1	35	3	0·16	−0·76	*	*
	Glencarron ⚓	47	22	42·8	32·0	37·4	− 1·3	2	36	4	1·30†	?	8	15
	Fort Augustus ⚓	49	20	43·6	33·6	38·6	− 1·4	4	31	7	0·46†	?	7	13
1. SCOTLAND, E.	Nairn	51	23	44·4	33·0	38·7	− 1·3	7	33	2	0·24	−0·29	*	*
	Aberdeen	46	27	43·3	32·7	38·0	− 2·0	4	33	5	0·72	−0·03	9	17
	Braemar ⚓	45	19	40·7	30·0	35·4	− 0·4	0	46	5	0·46	−0·41	9‡	17‡
	Ochtertyre ⚓	51	27	45·0	33·4	39·2	+ 0·3	8	32	2	0·24	−0·75	*	*
	Leith	46	30	42·9	34·1	38·5	− 1·8	3	28	3	0·19	−0·29	*	*
	Marchmont ⚓	44	23	40·1	30·1	35·1	− 3·6	0	48	4	0·26	−0·54	14	25
2. ENGLAND, N.E.	Alnwick Castle	44	26	40·6	33·9	37·3	− 2·9	0	33	4	0·56	−0·19	*	*
	Durham	44	22	39·9	27·7	33·8	− 6·4	0	57	3	0·04	−0·66	11	20
	Shields	46	27	42·6	31·3	37·0	− 4·5	2	38	2	0·08	−0·54	*	*
	Scarborough ⚓	46	27	40·0	30·5	35·3	− 5·8	0	47	4	0·22	−0·50	11‡	19‡
	York	42	24	38·0	26·9	32·5	− 8·5	0	67	1	0·03	−0·49	10	18
	Spurn Head	45	32	41·7	33·6	37·7	− 3·9	0	30	2	0·11	?	*	*
3. ENGLAND, E.	Hillington ⚓	41	22	37·4	25·7	31·6	− 9·4	0	73	4	0·17	−0·46	19	33
	Yarmouth	43	27	40·3	30·3	35·3	− 6·5	0	47	3	0·11	−0·64	*	*
	Geldeston	46	23	40·9	27·0	34·0	− 7·9	0	56	5	0·14	−0·49	25	42
	Cambridge	43	21	37·9	25·0	31·5	− 9·5	0	74	0	—	−0·57	20	34
	Rothamsted	40	17	36·1	25·3	30·7	− 9·8	0	79	5	0·25	−0·37	*	*
	Ingatestone	46	21	38·3	27·9	33·1	− 8·1	0	62	2	0·57	+0·01	17‡	29‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	44	23	40·0	27·7	33·9	− 7·6	0	57	1	0·03	−0·48	19‡	33‡
	Loughborough	45	19	40·3	25·3	32·8	− 7·7	0	64	2	0·03	−0·50	*	*
	Leicester	43	23	39·2	27·5	33·4	− 6·6	0	60	0	—	−0·53	14	24
	Cheadle ⚓	45	25	38·5	28·5	33·5	− 6·4	0	60	1	0·05	−0·69	*	*
	Churchstoke ⚓													
	Hereford ⚓	43	19	39·1	25·2	32·2	− 8·8	0	69	3	0·30	−0·25	*	*
	Cirencester	43	19	37·1	26·1	31·6	− 8·6	0	73	2	0·46	−0·25	19	32
	Oxford	42	19	36·9	26·4	31·7	− 9·3	0	72	2	0·27	−0·27	9	15
5. ENGLAND, S.	London	47	23	39·4	28·9	34·2	− 7·6	0	55	3	0·63	+0·13	4‡	7‡
	Strathfield Turgiss ⚓	40	19	36·8	25·2	31·0	−10·5	0	77	2	0·69	+0·12	*	*
	Dungeness	47	28	44·0	31·6	37·8	− 5·8	6	38	5	0·39	−0·43	*	*
	Hastings (St. Leonard's)	47	30	42·6	33·0	37·8	− 5·9	2	32	5	0·66	−0·09	20	33
	Southampton	45	26	40·6	29·9	35·3	− 7·3	0	47	3	0·29	−0·39	18	30
	Hurst Castle	46	25	41·6	31·0	36·3	− 8·0	0	40	5	0·69	0·00	*	*
	Stowell ⚓	45	23	40·3	27·7	34·0	− 7·8	0	56	4	0·16	?	16‡	27‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	49	27	43·6	34·7	39·2	− 2·3	4	27	4	1·55†	−0·66	*	*
	Glasgow	43	26	41·2	30·9	36·1	− 5·9	0	41	3	0·05	−0·83	1	2
	Ardrossan	46	27	43·7	33·7	38·7	− 1·8	5	30	4	0·36	−0·55	*	*
	Glenlee	45	21	41·5	26·8	34·2	− 4·4	0	55	2	0·05	?	*	*
	Douglas (Isle of Man)	50	25	44·7	31·1	37·9	− 4·3	8	40	2	0·51	−0·57	25	44
7. ENGLAND, N.W.	Newton Reigny (Penrith)	44	22	38·7	25·0	31·9	− 9·3	0	71	1	0·09	−0·71	12	21
	Barrow-in-Furness	45	30	42·1	31·6	36·9	− 6·0	0	37	1	0·03	−0·86	*	*
	Stonyhurst	40	25	37·7	27·7	32·7	− 8·1	0	65	1	0·17	−0·92	14	25
	Blackpool ⚓	44	28	40·0	29·6	34·8	− 8·3	0	59	2	0·03	−0·77	21	37
	Manchester	44	25	39·1	27·9	33·5	− 8·2	0	60	2	0·04	−0·81	*	*
	Liverpool Obsy (Bidston)	42	29	39·3	30·6	35·0	− 7·8	0	49	2	0·04	−0·61	*	*
	Llandudno ⚓	46	30	43·4	31·9	37·7	− 6·8	4	37	1	0·05	−0·76	21	36
	Holyhead	46	34	44·7	36·9	40·8	− 4·7	8	29	2	0·13	−0·75	*	*
8. ENGLAND, S.W.	Llandovery	41	16	39·1	22·3	30·7	−11·5	0	79	2	0·07	−1·10	*	*
	Pembroke	47	33	44·1	35·4	39·8	− 4·8	6	25	4	0·93	+0·01	27	46
	Arlington (N. Devon)	44	25	41·7	30·0	35·9	− 6·3	0	43	3	0·42	−1·01	*	*
	Cullompton ⚓	46	23	41·5	27·9	34·7	− 8·5	0	51	2	0·13	−0·66	18	30
	Falmouth	48	33	45·0	36·6	40·8	− 4·8	8	21	4	0·89	−0·39	25	41
	Plymouth	47	32	43·8	34·2	39·0	− 6·0	5	29	4	1·68	+0·86	25	41
	Prawle Point	48	33	45·4	33·6	39·5	− 5·5	10	32	4	0·75	?	*	*
9. IRELAND, N.	Malin Head	46	34	44·6	37·0	40·8	− 1·6	7	19	4	0·16	?	*	*
	Londonderry	44	29	41·8	32·8	37·3	− 4·8	0	33	3	0·12	−0·89	*	*
	Mullaghmore	47	33	45·0	36·7	40·9	− 1·9	8	21	5	0·45	−0·67	*	*
	Belmullet	48	32	45·4	37·9	41·7	− 3·5	10	17	6	1·26	?	*	*
	Markree Castle	46	24	42·2	29·7	36·0	− 6·0	1	44	5	0·53	−0·28	17	30
	Brookeborough	45	21	42·0	27·8	34·9	− 6·1	0	50	3	0·28	?	*	*
	Armagh	44	26	40·9	30·6	35·8	− 6·1	0	43	4	0·33	−0·32	8	14
	Donaghadee	46	29	43·7	32·7	38·2	− 4·5	5	34	3	0·38	−0·34	*	*
	Edgeworthstown	43	22	40·9	28·1	34·5	− 7·0	0	53	4	0·40	−0·43	*	*
10. IRELAND, S.	Dublin	45	29	42·1	32·1	37·1	− 6·0	0	35	3	0·23	−0·29	22	38
	Parsonstown	46	22	43·3	27·1	35·2	− 6·5	4	53	4	0·21	−0·44	21	36
	Kilkenny	44	20	42·7	27·0	34·9	− 7·2	2	53	3	0·44	−0·16	*	*
	Waterford	46	23	44·9	29·0	37·0	− 7·2	8	48	3	0·80	−0·10	*	*
	Roche's Point	48	32	45·3	35·3	40·3	− 4·8	9	26	3	1·21	+0·14	*	*
	Valencia	50	35	48·1	40·4	44·3	− 2·7	23	4	5	1·51	+0·22	26	44
	Killarney	48	24	46·3	29·8	38·1	− 7·1	12	46	5	1·59	?	*	*
	Foynes	47	25	44·3	32·9	38·6	− 4·4	6	33	6	0·76	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	49	39	47·7	41·7	44·7	− 3·8	20	1	4	0·70	−0·18	*	*
	Jersey (Noirmont)	48	31	45·0	35·9	40·5	− 5·2	8	24	5	1·36	+0·38	27	44

Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Glencarron, Fort Augustus, and Laudale being so much greater than that at the other stations in "Scotland, N." and "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in those districts.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London, the Sunshine values are the means of observations made in the City (Banhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S. SECRETARY.
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VOL. IV. No. 47.] *Second Series.* WEEK ENDING MONDAY, 28TH NOVEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 188.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	52	22	44·0	32·8	38·5	1 below.	6	− 4	34	+ 8	1899	+ 40	698	− 76
	1. SCOTLAND, EAST	55	25	44·2	33·5	38·9	1 above.	6	− 5	32	+ 1	2430	+ 68	752	+ 85
	2. ENGLAND, N.E.	53	25	45·7	36·4	41·1	1 above.	10	− 3	23	− 3	2460	− 82	691	+121
	3. ENGLAND, EAST	54	28	46·3	35·1	40·8	1 above.	12	− 3	28	+ 1	2769	−152	849	+252
	4. MIDLAND COUNTIES	53	25	46·1	34·4	40·3	1 above.	11	− 4	30	0	2761 *	−120	864	+248
	5. ENGLAND, SOUTH	54	29	47·2	37·2	42·2	1 above.	22	+ 1	13	− 8	2972	−208	657	+217
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	53	19	45·2	35·5	40·4	0 (average).	9	− 6	25	+ 2	2407	− 92	586	+102
	7. ENGLAND, N.W.	54	22	45·9	36·8	41·4	0 (average).	11	− 6	21	+ 1	2569	− 98	601	+153
	8. ENGLAND, S.W.	53	18	47·3	37·1	42·2	1 below.	22	− 4	14	+ 3	2927	−160	498	+234
	9. IRELAND NORTH	52	21	46·2	35·8	41·0	1 below.	12	− 6	25	+ 4	2695	+ 99	465	+ 43
	10. IRELAND, SOUTH	55	19	47·7	35·7	41·7	1 below.	16	−10	26	+ 9	3064	+ 99	437	+146
	— CHANNEL ISLANDS	54	37	49·3	43·2	46·3	0 (average).	30	− 8	0	− 3	3285	−123	179	+ 85

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 188.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	5	14	1 less.	211	+ 5	35·9	− 4·3	8	16	970	−216	23	− 5
	1. SCOTLAND, EAST	6	6	1 less.	162	−12	22·4	− 7·2	10	19	1345	− 7	32	0
	2. ENGLAND, N.E.	3	3	4 less.	150 *	−20	17·9	− 7·6	7	14	1331	+ 97	32	+ 2
	3. ENGLAND, EAST	4	4	3 less.	143	−31	17·5	− 6·4	9	16	1646	+144	40	+ 3
	4. MIDLAND COUNTIES	4	2	4 less.	128	−41	17·5	− 9·4	11	19	1498 *	+153	36	+ 3
	5. ENGLAND, SOUTH	5	7	1 more.	131	−30	19·4	− 6·0	8	13	1632	+191	40	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	5	15	2 more.	159	−27	33·3	− 8·5	10	19	1451	+155	35	+ 4
	7. ENGLAND, N.W.	5	8	1 less.	139	−35	21·9 *	−10·5	10	19	1486	+191	36	+ 5
	8. ENGLAND, S.W.	5	6	5 less.	136	−49	24·1	−15·5	15	25	1882	+331	46	+ 8
	9. IRELAND, NORTH	5	7	1 less.	163	−44	28·4	− 4·4	15	27	1337	+115	32	+ 3
	10. IRELAND, SOUTH	4	6	2 less.	137	−55	24·6	−11·2	16	29	1654	+257	40	+ 6
	— CHANNEL ISLANDS	5	6	4 less.	154	−46	21·8	− 8·3	6	10	2041	+206	49	+ 4

General Remarks.

Weather has continued cloudy or dull generally, with occasional, but not heavy, falls of rain.

Temperature has not differed materially from the mean; in the "Wheat-producing" districts it has been 1° higher, and in most of the "Grazing" districts 1° lower, than its normal value. The highest of the maxima, which were registered during the latter part of the period, ranged from 52° in "Scotland, N." and "Ireland, N." to 55° in "Scotland, E." and "Ireland, S." The lowest of the minima, which were generally recorded either on the 22nd or 24th, varied from 18° in "England, S.W." and 19° in "Scotland, W." and "Ireland, S." to 29° in "England, S." and 37° in the "Channel Islands".

Rainfall has been slightly in excess of the mean in "England, S." and "Scotland, W.", but less in all other districts.

Bright sunshine has been less prevalent than it was last week in nearly all places. The percentage of the possible amount of duration varied from 10 in the "Channel Islands" and 13 in "England, S.", to 25 in "England, S.W." and to between 27 and 29 in Ireland. At Glasgow and York the percentage was only 2, and in London 5.

Depressions observed.—During the earlier part of the period a broad band of high pressure moved slowly southwards over our Islands and no depressions appeared over the United Kingdom. As the high pressure reached the Bay of Biscay and France, however, some large and important disturbances passed over our extreme northern coasts from the westward or south-westward, while small subsidiary depressions travelled across Ireland and England. The wind, which was at first moderate or fresh from the Eastward or North-Eastward, subsequently shifted to South-West or West and increased considerably in force; at some of our western and north-western stations the force of a gale was attained at times.

* These values have been altered owing to the receipt of some arrears of observations.

▲ 52645. 350.—12/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

Weather

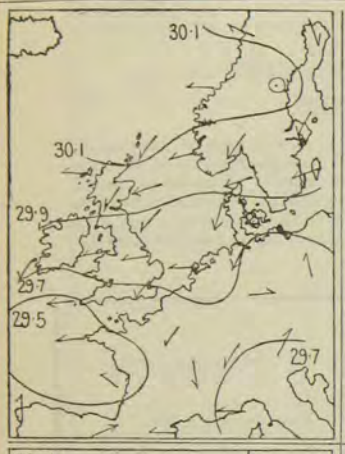
During the 24 hours succeeding

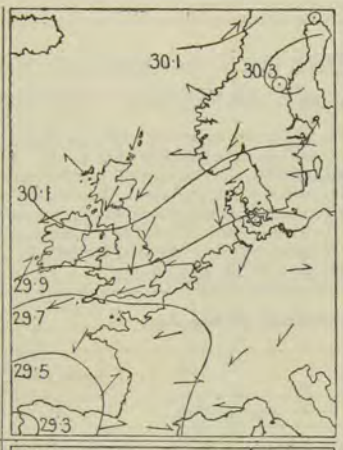
8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, November 22.

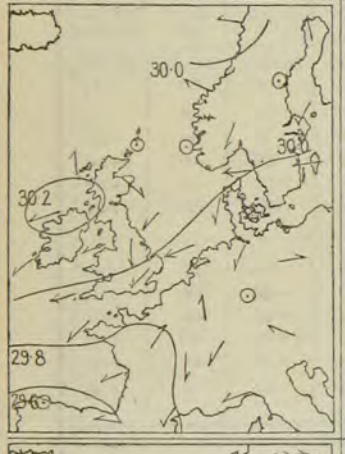
Weather fine in the extreme north and north-west, but dull elsewhere, with fog over Central England and rain in the east of Great Britain and west of France. Rain extending to our west coasts later, but some improvement taking place in east.

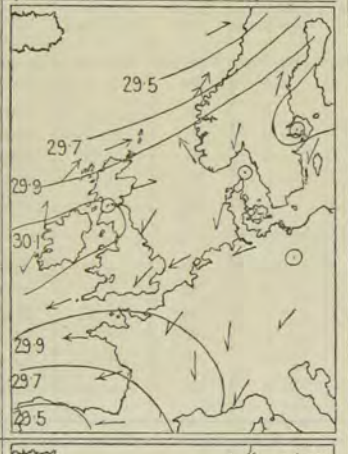
Temperature risen in our Islands, but fallen at the Continental stations; readings over the United Kingdom ranging at 8 a.m. from 47° at Scilly to 32° at Loughborough. Frost occurring in the north of Scotland at night.

Wind North-Easterly or Easterly at all but the southern French stations; strong in force over Denmark and the south-west of England.

Sea rough on our extreme south-west coasts as well as at Aberdeen, but moderate to smooth elsewhere.

Barometer rising at all but the Spanish and French stations. Large anticyclone lying to the northward of our Islands, with an extensive (but not deep) depression over the Bay of Biscay and a smaller disturbance over North Germany. Depression over Bay of Biscay subsequently moving southwards, and recovery of pressure taking place over France.





Wednesday, November 23.

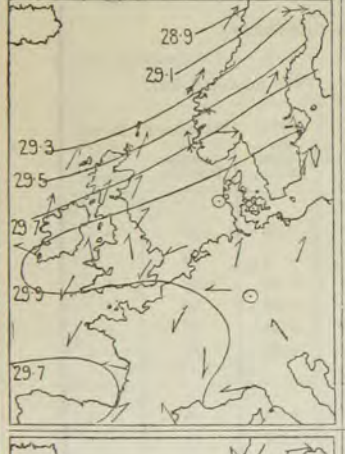
Weather rainy over the Netherlands and extreme south-east of England, and dull in Denmark, Germany, and the south of France, but fair or fine elsewhere. Improvement taking place in south-east later.

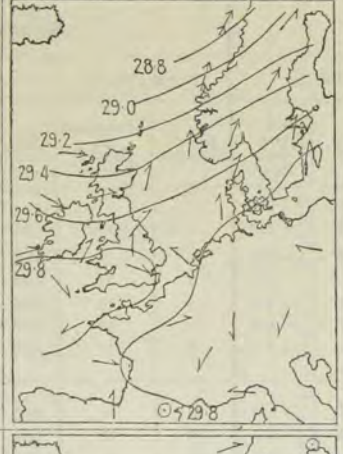
Temperature fallen generally; readings over our Islands ranging from 44° in Scilly to 30° at Wick. Sharp frost occurring over the central parts of England and Ireland at night.

Wind light and variable in the extreme north of Scotland, as well as in Germany and the east of France, but North-Easterly in most other localities. Strong in force at the Channel stations. Fresh South-Westerly breeze appearing in north later.

Sea rough on our east and south-west coasts, but moderate to smooth elsewhere.

Barometer rising at all but our extreme northern stations. Long band of high pressure extending from Finland to our north-west coasts, with a depression over Portugal, another off the north-west of Norway, and shallow disturbances over the northern parts of Germany and France. Brisk fall taking place in north later.





Thursday, November 24.

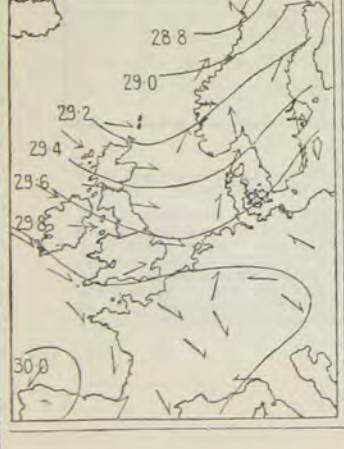
Weather dull in Scandinavia and the extreme north and north-west of our Islands, with rain in some places, but fair or fine elsewhere. Fog, however, reported over Central England. Rain falling later at most of our northern stations.

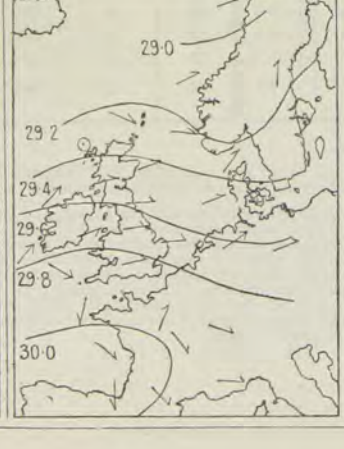
Temperature risen several degrees over Scandinavia, France, and the north of our Islands, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 49° at Stornoway to 23° at Parsonstown.

Wind strong to a gale from South-West over Scandinavia and the extreme north of Scotland, and moderate to fresh from the same quarter in the north of our Islands generally, but North-Easterly or Easterly at our southern and the French stations.

Sea rough in the extreme north, but moderate to smooth elsewhere.

Barometer falling at all but the southern French stations. Band of high pressure extending from Central Europe across England to the south of Ireland, with large and deep depression off the north of our Islands and the west of Norway. High pressure band subsequently breaking up and south-westerly gradients extending southwards over our Islands.





Friday, November 25.

Weather cloudy and unsettled with steady rain in Norway and Denmark, and passing showers in many parts of the United Kingdom. Some improvement taking place over Great Britain later, but lunar halos seen in many places at night.

Temperature fallen in the extreme north, but risen elsewhere; readings over our Islands ranging at 8 a.m. from 50° at Scilly to 36° at Wick.

Wind fresh North-Westerly on our west coasts, but moderate Westerly in the east, and South-Westerly or Southerly on the eastern shores of the North Sea. Subsequently backing to South-West on our extreme western coasts.

Sea rough on our north and north-west coasts, but moderate to smooth elsewhere.

Barometer rising over France and the south-west of our Islands, but falling elsewhere. Pressure highest over Spain, with a large depression off the north-west of Norway, intervening gradients rather steep. Rise extending later to all parts of the United Kingdom, but brisk fall taking place in west at night.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

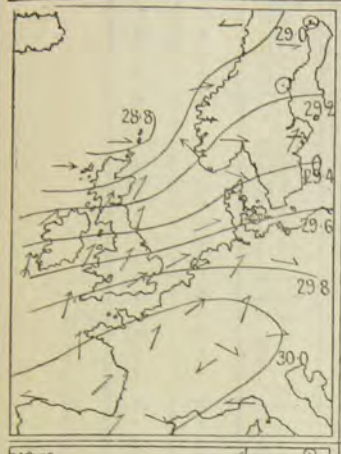
Weather

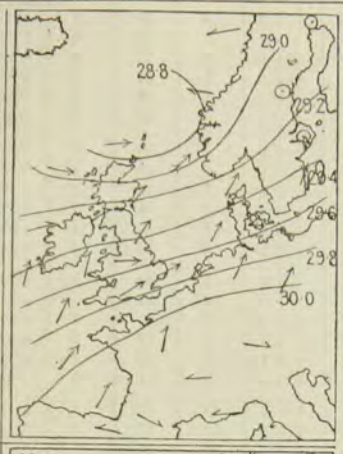
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Saturday, November 26.

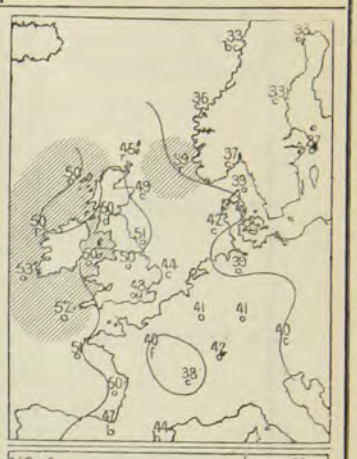
Weather fair in the east of England and south of France, but dull elsewhere, with rain at some of our western and northern stations. Rain extending later to nearly all parts of the Kingdom.

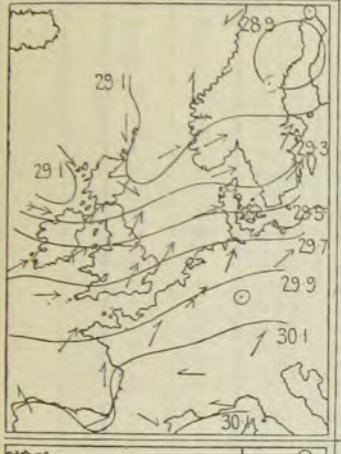
Temperature risen several degrees in our Islands, but fallen in Scandinavia and the south of France; readings over the United Kingdom ranging at 8 a.m. from 53° at Valencia to 45° in the Shetlands and 44° at Yarmouth.

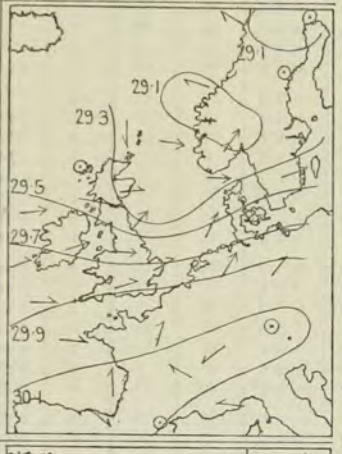
Wind chiefly South-Westerly; strong to a gale at many of our western stations, but moderate or fresh in force elsewhere. Subsequently increasing to a moderate or fresh gale in most parts of our Islands.

Sea rough on our west and north-west coasts, but moderate to smooth elsewhere.

Barometer falling briskly in our Islands and the west of Norway, but rising elsewhere. Pressure highest over Spain and the south of France, with a large and deep depression off the north-west of Scotland. Depression subsequently moving north-eastwards and barometer rising on our northern coasts.







Sunday, November 27.

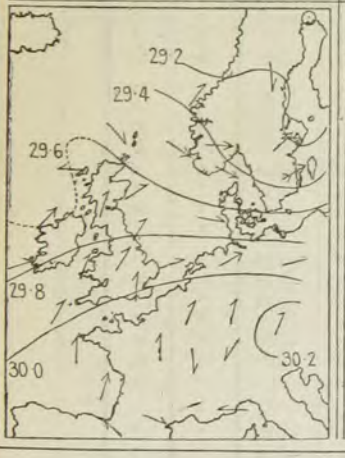
Weather fair in Scandinavia, Denmark, and the west and north of England, but cloudy elsewhere, with rain over Scotland, the north of Ireland, and central England. Improvement taking place over our Islands later, but lunar halos seen in the south at night.

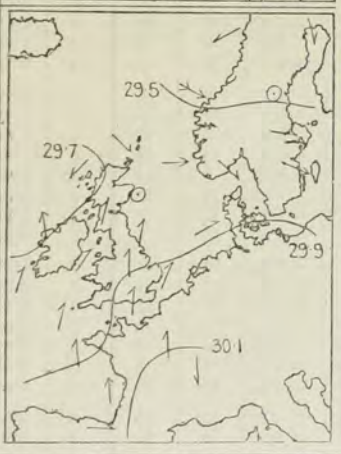
Temperature fallen several degrees in the west and north, but risen elsewhere; readings over our Islands ranging from 51° at Jersey, Dungeness, and in London to 35° in the Shetlands. Frost occurring over Scotland and central Ireland at night.

Wind light North-Westerly in the north of Scotland and variable in the north of Scandinavia, but strong from the South-Westward elsewhere, with gales on our north-west coasts. Wind moderating generally later.

Sea high at Mullughmore and Holyhead, and rough on our west and south coasts generally.

Barometer falling at all but the Scotch and Norwegian stations. Pressure highest over France and Spain; depression of previous day passing away over Sweden, but subsidiary disturbances shown respectively off the west and north-east of Scotland. Latter disturbance subsequently moving away north-eastwards, and barometer rising generally.





Monday, November 28.

Weather fair generally, but showery on our extreme south-west coasts, and rainy in the west of Norway. Heavy rain falling in the south of England at night.

Temperature fallen several degrees; readings over our Islands ranging at 8 a.m. from 49° at Prawle Point to 29° at Nairn. Frost occurring at night over Scotland and central Ireland.

Wind moderate to strong from West or North-West over the north of Scotland and the eastern shores of the North Sea, but South-Westerly over England and Ireland and Southerly in France.

Sea rather rough off the north-west of France, the west of Norway, and also at Pembroke, but moderate to smooth elsewhere.

Barometer rising generally. Pressure high over Germany, France, and Spain. Depression of previous day now passing away over Scandinavia, but shallow disturbance lying off the west of Scotland. Small depression subsequently forming near mouth of Channel, and barometer falling briskly in south.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	49	32	44·0	35·1	39·6	− 1·3	6	26	5	0·96	−0·02	*	*
	Stornoway	51	30	45·9	33·0	39·5	− 1·0	11	35	5	1·06	−0·03	8	16
	Wick	50	29	44·3	33·0	38·7	− 1·3	6	33	5	0·39	−0·31	*	*
	Lairg ⚓	50	22	42·1	30·1	36·1	− 2·4	0	42	5	0·84	−0·11	*	*
	Glencarron ⚓	50	24	42·5	32·2	37·4	− 0·4	1	35	7	2·98†	?	?	?
	Fort Augustus ⚓	52	26	45·2	33·5	39·4	+ 0·5	9	32	5	1·96†	?	?	?
1. SCOTLAND, E.	Nairn	53	28	45·1	33·0	39·1	− 0·1	9	34	6	0·71	+0·19	*	*
	Aberdeen	55	29	44·1	33·6	38·9	− 0·1	6	31	5	0·31	−0·44	12	24
	Braemar ⚓	51	25	42·3	31·0	36·7	+ 2·0	1	39	6	0·48	−0·35	6‡	12‡
	Ochtertyre ⚓	52	27	45·9	31·1	38·5	+ 0·8	11	41	5	1·10	+0·11	*	*
	Leith	53	34	44·7	37·4	41·1	+ 1·6	8	18	5	0·59	+0·11	*	*
	Marchmont ⚓	50	28	43·1	34·7	38·9	+ 1·7	3	26	6	0·66	−0·14	11	21
2. ENGLAND, N.E.	Alnwick Castle	52	29	44·6	35·6	40·1	+ 0·9	7	24	3	0·56	−0·19	*	*
	Durham	53	25	45·5	35·5	40·5	+ 1·0	10	25	2	0·34	−0·36	14	26
	Shields	53	29	47·4	37·3	42·4	+ 1·9	23	13	3	0·30	−0·31	*	*
	Scarborough ⚓	52	29	44·8	36·3	40·6	+ 0·5	8	22	2	0·09	−0·63	7‡	13‡
	York	53	29	46·1	35·6	40·9	+ 0·9	11	26	5	0·25	−0·27	1	2
	Spurn Head	50	34	46·0	38·0	42·0	+ 1·5	11	11	3	0·07	?	*	*
3. ENGLAND, E.	Hillington ⚓	51	30	46·5	33·9	40·2	+ 0·2	13	32	3	0·07	−0·55	11	20
	Yarmouth	50	31	45·6	36·6	41·1	+ 0·6	10	21	4	0·43	−0·29	*	*
	Geldeston	52	30	46·4	35·2	40·8	+ 0·2	12	27	3	0·40	−0·22	8	14
	Cambridge	54	28	47·4	34·7	41·1	+ 1·1	15	30	4	0·24	−0·22	10	18
	Rothamsted	53	29	45·8	33·7	39·8	+ 0·3	11	32	4	0·31	−0·30	*	*
	Ingatestone	51	31	46·3	36·7	41·5	+ 1·4	12	22	4	0·64	+0·11	6‡	11‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	53	25	46·4	35·1	40·8	+ 0·2	12	28	2	0·05	−0·47	12‡	21‡
	Loughborough	52	29	47·3	35·4	41·4	+ 1·9	15	27	3	0·09	−0·44	*	*
	Leicester	51	28	46·3	34·1	40·2	+ 1·2	12	31	4	0·17	−0·36	10	18
	Cheadle ⚓	50	29	44·0	33·3	38·7	− 0·3	6	32	5	0·14	−0·61	*	*
	Churchstoke ⚓	51	25	45·2	33·9	39·6	+ 0·4	9	31	5	0·48	−0·30	13	23
	Hereford ⚓	53	28	47·6	34·5	41·1	+ 1·1	16	31	4	0·55	0·00	*	*
	Cirencester	49	26	45·9	33·3	39·6	+ 0·1	11	33	4	0·21	−0·49	12	21
	Oxford	51	29	46·1	35·3	40·7	+ 0·5	11	26	4	0·16	−0·35	8	14
5. ENGLAND, S.	London	53	31	47·7	37·4	42·6	+ 1·6	24	13	4	0·58	+0·09	3‡	5‡
	Strathfield Turgiss ⚓	53	30	45·9	34·4	40·2	− 0·1	11	30	6	0·48	−0·08	*	*
	Dungeness	52	29	48·3	39·4	43·9	+ 1·0	24	7	5	0·92	+0·11	*	*
	Hastings (St. Leonard's)	52	34	47·7	38·5	43·1	+ 0·2	22	10	6	1·55	+0·83	10	17
	Southampton	54	32	47·2	36·8	42·0	+ 0·7	15	15	5	0·49	−0·21	8	14
	Hurst Castle	52	34	47·6	39·0	43·3	+ 0·1	22	8	6	0·82	+0·14	*	*
	Stowell ⚓	50	29	46·1	35·2	40·6	+ 0·1	11	26	4	0·27	?	9‡	16‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	53	28	46·0	36·7	41·4	+ 0·6	11	22	6	2·77†	+0·56	*	*
	Glasgow	51	27	44·1	34·3	39·2	− 0·5	6	28	5	1·61	+0·72	1	2
	Ardrossan	50	30	46·0	36·7	41·4	+ 1·7	11	22	5	1·17	+0·27	*	*
	Glenlee	50	19	43·2	32·8	38·0	0·0	3	33	6	1·47	?	*	*
	Douglas (Isle of Man)	51	27	46·8	36·8	41·8	+ 0·1	13	22	4	0·57	−0·49	19	35
7. ENGLAND, N.W.	Newton Reigny (Penrith)	51	22	44·1	33·2	38·7	− 0·7	6	33	6	1·21	+0·41	8	15
	Barrow-in-Furness	50	32	46·9	38·1	42·5	+ 0·3	20	11	6	1·00	+0·13	*	*
	Stonyhurst	50	28	44·4	36·1	40·3	+ 0·4	7	23	4	1·08	−0·01	12	22
	Blackpool ⚓	49	31	45·3	37·3	41·3	− 0·9	9	19	6	0·88	+0·09	12	22
	Manchester	53	28	45·1	35·2	40·2	− 0·6	9	26	6	0·46	−0·39	*	*
	Liverpool Obsy (Bidston)	53	31	46·4	36·6	41·5	− 0·2	12	22	4	0·16	−0·48	*	*
	Llandudno ⚓	54	29	47·2	37·9	42·6	− 0·4	21	11	5	0·45	−0·35	9	16
	Holyhead	52	34	48·1	39·6	43·9	− 0·9	23	7	4	0·91	+0·04	*	*
8. ENGLAND, S.W.	Llandovery	52	18	45·7	30·6	38·2	− 3·0	10	43	6	1·43	+0·24	*	*
	Pembroke	52	34	47·7	40·7	44·2	+ 0·2	21	4	6	0·75	−0·17	17	30
	Arlington (N. Devon)	50	30	45·9	36·6	41·3	− 0·1	11	22	6	0·83	−0·60	*	*
	Cullompton ⚓	52	29	46·8	35·0	40·9	− 1·5	13	28	5	0·22	−0·58	11	19
	Falmouth	53	33	48·1	39·9	44·0	− 1·0	23	6	3	0·15	−1·10	18	31
	Plymouth	53	33	48·0	39·2	43·6	− 0·4	23	8	3	0·18	−0·64	12	20
	Prawle Point	52	31	49·1	37·9	43·5	− 0·5	28	11	3	0·50	?	*	*
9. IRELAND, N.	Malin Head	52	33	46·6	38·4	42·5	+ 1·0	19	10	6	0·94	?	*	*
	Londonderry	51	29	45·1	35·9	40·5	− 0·7	9	24	5	0·76	−0·24	*	*
	Mullaghmore	52	32	48·1	38·1	43·1	+ 0·9	24	11	5	0·61	−0·49	*	*
	Belmullet	51	35	48·0	40·3	44·2	− 0·2	23	5	6	1·35	?	*	*
	Markree Castle	51	24	46·0	33·4	39·7	− 1·6	11	33	6	0·98	+0·17	14	25
	Brookeborough	50	22	44·9	32·3	38·6	− 1·8	8	36	3	0·55	?	*	*
	Armagh	51	27	46·1	34·9	40·5	− 0·7	11	28	4	0·42	−0·22	16	29
	Donaghadee	52	29	46·7	36·6	41·7	− 0·3	13	23	4	0·20	−0·49	*	*
	Edgeworthstown	51	21	44·6	32·3	38·5	− 2·0	7	36	5	0·55	−0·27	*	*
10. IRELAND, S.	Dublin	55	28	48·0	38·1	43·1	+ 0·7	24	11	4	0·43	−0·09	18	32
	Parsonstown	54	21	46·1	32·0	39·1	− 1·9	11	38	4	0·56	−0·09	16	29
	Kilkenny	53	19	46·1	32·3	39·2	− 2·0	11	37	2	0·29	−0·35	*	*
	Waterford	52	24	47·6	35·4	41·5	− 1·6	16	27	5	0·66	−0·24	*	*
	Roche's Point	53	31	48·3	38·0	43·2	− 0·8	25	11	2	0·55	−0·53	*	*
	Valencia	53	33	49·6	40·0	44·8	− 1·5	28	6	5	0·82	−0·46	14	25
	Killarney	53	22	48·7	34·5	41·6	− 2·9	19	31	5	0·81	?	*	*
	Foynes	54	24	47·5	35·3	41·4	− 1·1	15	27	6	0·73	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	54	41	50·1	44·6	47·4	− 0·6	38	0	5	0·46	−0·42	*	*
	Jersey (Noirmont)	53	37	48·4	41·7	45·1	+ 0·2	23	1	5	0·68	−0·30	6	10

Stations marked ⚓ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Glencarron, Fort Augustus, and Laudale being so much greater than that at the other stations in "Scotland, N." and "Scotland, W.", and the fall being very local, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in these districts.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S. SECRETARY.
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VOL. IV. No. 48.] *Second Series.* WEEK ENDING MONDAY, 5TH DECEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 192.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	54	21	45·8	36·2	41·2	2 above.	11	+ 3	24	− 5	1910	+ 42	722	+ 78 *
	1. SCOTLAND, EAST	55	24	46·6	35·6	41·3	4 above.	13	+ 4	27	− 8	2443	+ 70	779	+ 82
	2. ENGLAND, N.E.	54	26	45·9	37·2	41·7	2 above.	11	0	21	− 9	2471	− 84	712	+116
	3. ENGLAND, EAST	53	29	45·6	36·3	41·3	2 above.	10	− 3	25	− 6	2779	−157	874	+248
	4. MIDLAND COUNTIES	55	25	47·0	35·5	41·5	2 above.	14	+ 1	28	− 6	2773	−124	894 †	+259
	5. ENGLAND, SOUTH	52	29	47·6	38·8	43·4	2 above.	23	+ 6	9	−15	2995	−205	636	+203
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	53	25	47·5	37·9	42·9	3 above.	24	+13	11	−14	2431	− 82	597	+ 92
	7. ENGLAND, N.W.	54	24	46·6	38·6	42·7	1 above.	19	+ 7	10	−13	2588	− 94	611	+145
	8. ENGLAND, S.W.	54	23	47·3	38·7	43·7	1 above.	26	+ 9	9	− 4	2953	−262	507	+232
	9. IRELAND NORTH	52	27	47·3	37·7	42·8	1 above.	24	+11	12	−12	2719	+106	477	+ 36
	10. IRELAND, SOUTH	55	23	48·3	38·6	43·6	1 above.	25	+ 5	10	−10	3089	+ 99	447	+142
	— CHANNEL ISLANDS	53	34	49·8	42·5	46·3	0 (average).	30	+ 1	0	− 5	3315	−129	179	+ 82

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 192.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	16	1 less.	217	+ 6	37·5	− 4·4	3	7	969 †	−226	23	− 5
	1. SCOTLAND, EAST	3	3	4 less.	165	−13	22·7	− 7·6	3	6	1348	− 12	32	0
	2. ENGLAND, N.E.	3	4	3 less.	153	−21	18·3	− 7·8	10	20	1341	+108	32	+ 3
	3. ENGLAND, EAST	3	2	4 less.	146	−33	17·7	− 6·7	14	25	1660	+150	40	+ 4
	4. MIDLAND COUNTIES	3	2	4 less.	131	−42	17·7	− 9·8	15	27	1513	+159	36	+ 4
	5. ENGLAND, SOUTH	2	2	5 less.	133	−32	19·6	− 6·5	12	22	1644	+194	39	+ 4
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	6	12	4 less.	165	−26	34·5	− 8·8	5	9	1456	+154	35	+ 4
	7. ENGLAND, N.W.	5	6	3 less.	144	−35	22·5	−10·8	4	14	1490	+188	35	+ 4
	8. ENGLAND, S.W.	5	4	7 less.	141	−49	24·5	−16·2	17	31	1899	+338	45	+ 8
	9. IRELAND, NORTH	5	7	1 less.	168	−45	29·1	− 4·6	3	6	1340	+109	32	+ 3
	10. IRELAND, SOUTH	5	7	1 less.	142	−56	25·3	−11·4	8	15	1662	+256	40	+ 7
	— CHANNEL ISLANDS	5	5	5 less.	159	−47	22·3	− 9·2	16	28	2057	+209	49	+ 5

General Remarks.

Weather has been somewhat finer than that experienced of late over the greater part of England, but in Ireland and Scotland the conditions have continued very unsettled and the sky generally overcast.

Temperature has been above the mean in all districts excepting the "Channel Islands", the excess ranging from 1° over the western parts of England and in the south of Ireland to 3° in "Scotland, W." and 4° in "Scotland, E." The highest of the maxima, which were registered on rather irregular dates, varied from 52° in "England, S." and "Ireland, N." to 55° in "Scotland, E.", the "Midland Counties", and "Ireland, S." The lowest of the minima were generally recorded either on November 29th or December 5th, when the thermometer fell to 21° in "Scotland, N.", to between 23° and 29° in most other parts of the Kingdom, and to 34° in the "Channel Islands".

Rainfall has been less than the mean in all districts.

Bright sunshine shows an increase in most of the English districts, but a decrease elsewhere. The percentage of the possible amount of duration ranged from 6 to 9 in Scotland, from 6 to 15 in Ireland, and from 14 to 31 in England.

Depressions observed.—At the commencement of the period some small subsidiary disturbances were moving over our Islands in a north-easterly direction, the wind being chiefly moderate to fresh from the Northward or North-Westward. By December 1st, however, these had disappeared and a large anticyclone had been formed over all the southern parts of our area. To the northward of our Islands, however, some very deep and extensive depressions travelled from the westward on to Scandinavia, the wind over the United Kingdom consequently increasing considerably from the Westward and at times reaching the force of a gale at our more northern stations. By the 4th, these large low pressure systems had disappeared, some more small shallow depressions were moving eastwards over England, and the wind had become light and somewhat variable.

* The corresponding value in last week's Report should read "+80."
† These values have been altered owing to the receipt of further information.

A 52694. 350.—12/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

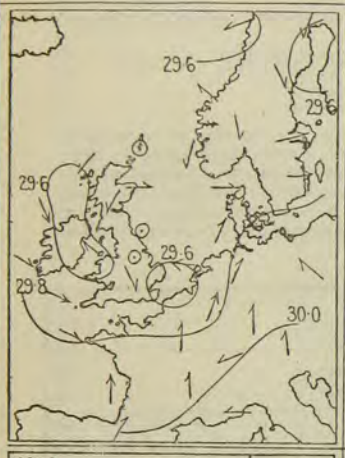
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.



Tuesday, November 29.

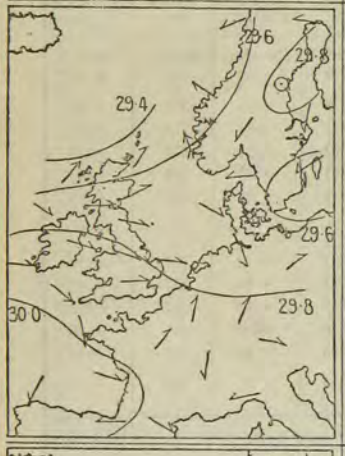
Weather fine in Scandinavia, Denmark, the north of our Islands, and the south of France, but cloudy elsewhere, with rain at our south-eastern and several of our western stations. Rain falling later in nearly all parts of the United Kingdom.

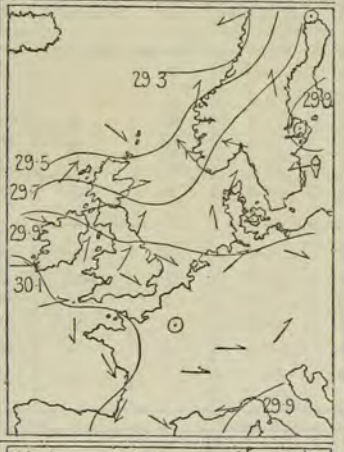
Temperature fallen a little generally; readings over our Islands ranging at 8 a.m. from 48° at Jersey to 30° at Leith. Frost occurring in many places at night.

Wind moderate to strong from North-West on our south-west coasts, and Westerly in the south and south-east, but light and variable in the north and north-east.

Sea rather rough at the mouth of the Channel and also off the south-east of England.

Barometer falling at all but the Scandinavian stations. Pressure highest over Spain and the southern parts of France and Germany, with a small depression off the south-east of England, and a larger but shallow disturbance over our north-west coasts. Depressions subsequently moving north-eastwards, and barometer rising in most parts of the United Kingdom.





Wednesday, November 30.

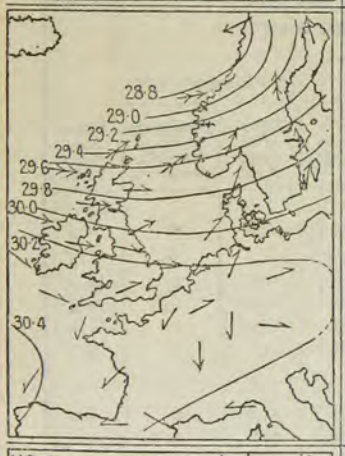
Weather dull and unsettled in the west and north of our Islands as well as in Germany and the east of France, but fine elsewhere. Rain falling later in the extreme west and north.

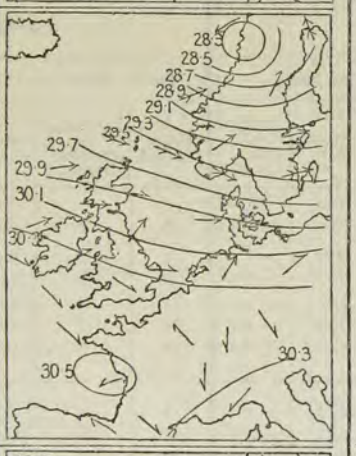
Temperature risen in the west and north of our Islands, and also in Germany and France, but fallen in most other localities; readings over the United Kingdom ranging at 8 a.m. from 48° at Valencia and 47° at Belmullet to 32° at Oxford.

Wind South-Westerly over Scotland and the north of Ireland and South-Easterly in the west of Norway, but Westerly or North-Westerly over the southern parts of our Islands, and North-Easterly in the south of Sweden.

Sea rather rough at Skudesnaes and Scilly, but moderate to smooth elsewhere.

Barometer rising at all but the extreme northern stations. Pressure highest over Portugal, but relatively high over the Gulf of Bothnia. Depression shown in south-east on previous day now disappearing over the Baltic, but new disturbance approaching our extreme northern coasts. Rise taking place in north later.





Thursday, December 1.

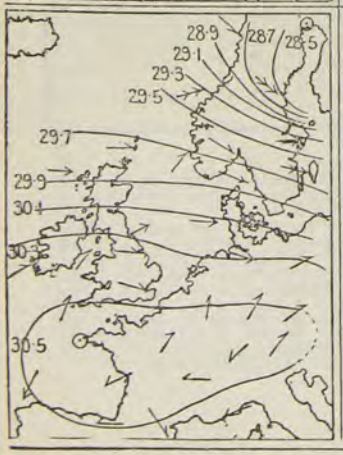
Weather fine in Belgium, France, Spain, and the east of Great Britain, but cloudy elsewhere, with rain locally. Showers falling later on our extreme north and north-west coasts.

Temperature risen several degrees over our Islands, Scandinavia, and Denmark, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 52° at Nairn and 51° at Ardrossan and Scilly to 41° at Yarmouth.

Wind Westerly in our Islands, but South-Westerly on the eastern shores of the North Sea, and Southerly in Sweden; strong to a gale on our extreme northern coasts as well as in Scandinavia. Gale in north moderating later.

Sea rough off the north of Scotland and also on the Norwegian coasts, but moderate to smooth elsewhere.

Barometer rising at all but the Scandinavian stations. Anticyclone lying over the Bay of Biscay, France, and our extreme south-west coast, with a large and deep depression off the north-west of Norway. Depression subsequently moving eastwards across the north of Scandinavia, and barometer rising in Norway.



Friday, December 2.

Weather fair over Great Britain as well as in the southern parts of Sweden and Germany, but dull elsewhere, with rain or snow in the extreme north, and fog or mist over France.

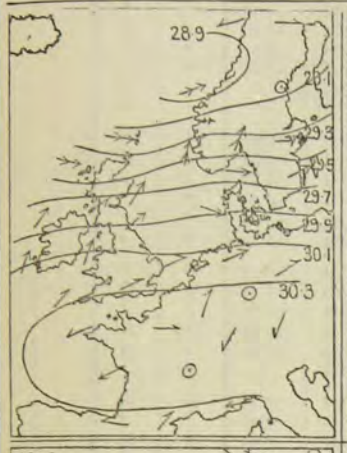
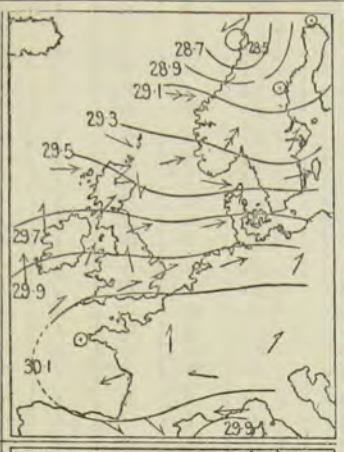
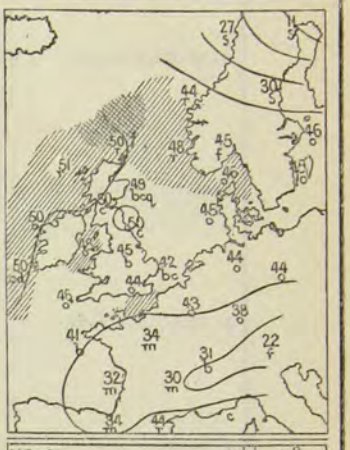
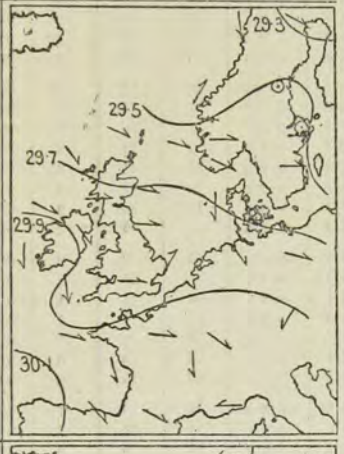
Temperature fallen a little over our Islands and the south-west of France, but risen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 50° in the north of Scotland to 43° at Oxford.

Wind Easterly over the southern parts of France, but chiefly Westerly elsewhere; strong in the extreme north, with gales at the Scandinavian stations. Subsequently backing to the South-Westward in the west and north of our Islands.

Sea very high at Christiansund, and rough in the extreme north and north-west generally.

Barometer rising generally. Anticyclone lying over the Bay of Biscay, France, and South Germany, and large depression of previous day passing away towards Finland. Brisk fall taking place in west and north later, and new disturbance appearing in far north.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather during the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, December 3.** *Weather* unsettled in the extreme west and north, with rain in many places and snow over the northern parts of Scandinavia; generally fine elsewhere, but misty over France and Germany. Rain falling later at all our more western and northern stations, and exceedingly heavy fall taking place in the south of France. *Temperature* changed little and irregularly; readings over our Islands ranging at 8 a.m. from 53° at Wick and Nairn to 42° at Loughborough and Yarmouth. Frost occurring in the north of Scotland at night. *Wind* South-Westerly or Westerly over our Islands, Denmark, and the south of Scandinavia; strong to a gale in the extreme north. Moderate Easterly in the west and south of France. *Sea* very high at Sumburgh Head and rough or rather so on all our more northern coasts. *Barometer* falling generally. Anticyclone over France moving away eastwards, and large depression shown off the north-west of Norway. Depression subsequently travelling north-eastwards, and rise of barometer taking place in extreme north.	
		**Sunday, December 4.** *Weather* fine in Germany, the extreme north of Scotland, and the east of England, but cloudy elsewhere, with rain in the west of our Islands and south of France and snow in Norway. Rain falling later in the east and south, but weather improving in west. *Temperature* fallen at all but the southern French stations, rapidly in Ireland and Scotland; readings over our Islands ranging at 8 a.m. from 48° at Scilly to 33° at Wick. Frost occurring at night over Scotland, the north of England, and central Ireland. *Wind* moderate Northerly and North-Westerly in the extreme west and north, but Westerly or South-Westerly elsewhere. *Sea* rough at some of our western and northern stations. *Barometer* fallen in England, France, and Germany, but rising elsewhere. Band of high pressure extending from Spain across France to South Germany and area of low pressure over the north of Scandinavia, with shallow local disturbances over the north of England and the mouth of the St. George's Channel. Depressions subsequently moving south-eastwards to the Continent.	
		Monday, December 5. *Weather* dull and unsettled in Belgium, France, and Germany, but fair in most other countries. Rain or snow falling in the west of Norway. Heavy rain falling in Ireland at night. *Temperature* fallen several degrees over England, Sweden, and Denmark, but risen elsewhere; readings over our Islands ranging at 8 a.m. from 47° at Belmullet to 25° at Loughborough. *Wind* light northerly in the south of England and the north of France, but South-Westerly elsewhere; fresh in force on our extreme north-west coasts. South-Westerly gale in Ireland and the west of Scotland at night. *Sea* rough in the extreme north, but moderate to smooth elsewhere. *Barometer* rising at all but our western and northern stations. Pressure highest over Portugal, and lowest to the northward of our Islands, with shallow disturbances over the Netherlands and north-east of France. Brisk fall taking place later on our western and northern coasts, and deep depression approaching the west of Scotland.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 189 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	51	21	45·0	35·0	40·2	− 0·4	8	28	7	1·29	+0·31	*	*
	Stornoway	51	31	47·0	37·6	42·5	+ 2·3	22	12	7	1·31	+0·16	6	13
	Wick	54	24	47·3	34·7	41·2	+ 1·4	15	31	4	0·24	−0·47	*	*
	Lairg ℌ	53	27	45·3	35·0	40·4	+ 2·1	9	29	4	0·51	−0·44	*	*
	Glencarron ℌ	50	30	44·0	36·2	40·3	+ 2·7	6	23	7	4·91†	?	0	0
	Fort Augustus ℌ	51	30	45·9	38·4	42·3	+ 3·5	17	10	7	1·18†	?	*	*
1. SCOTLAND, E.	Nairn	55	26	48·1	36·0	42·3	+ 3·5	27	17	4	0·29	−0·22	*	*
	Aberdeen	54	29	47·4	35·6	41·7	+ 3·2	15	28	2	0·22	−0·53	8	17
	Braemar ℌ	50	24	44·6	33·5	39·3	+ 4·9	7	33	4	0·35	−0·45	0‡	0‡
	Ochtertyre ℌ	55	26	48·0	35·9	42·2	+ 4·8	27	17	4	0·41	−0·69	*	*
	Leith	53	29	47·3	37·4	42·6	+ 3·7	24	13	2	0·26	−0·22	*	*
	Marchmont ℌ	50	28	44·1	34·9	39·7	+ 2·5	6	28	4	0·36	−0·44	1	2
2. ENGLAND, N.E.	Alnwick Castle	51	30	45·1	33·1	41·7	+ 2·8	9	17	3	0·36	−0·39	*	*
	Durham	51	26	46·2	35·5	41·1	+ 2·0	12	27	3	0·36	−0·34	11	22
	Shields	54	31	47·4	37·7	42·7	+ 2·6	23	12	3	0·32	−0·29	*	*
	Scarborough ℌ	50	30	44·3	36·3	40·5	+ 0·9	6	22	2	0·44	−0·27	11‡	21‡
	York	51	28	46·9	36·7	42·0	+ 2·6	14	15	4	0·22	−0·32	9	17
	Spurn Head	49	34	45·7	38·7	42·3	+ 2·5	16	9	2	0·37	?	*	*
3. ENGLAND, E.	Hillington ℌ	50	29	44·9	36·4	40·8	+ 1·6	8	23	4	0·42	−0·19	14	26
	Yarmouth	49	33	44·4	37·3	41·0	+ 1·1	7	19	4	0·23	−0·48	*	*
	Geldeston	52	31	45·8	36·4	41·3	+ 1·2	11	24	3	0·17	−0·43	11	20
	Cambridge	52	31	46·7	35·9	41·5	+ 2·2	13	26	2	0·14	−0·31	16	29
	Rothamsted	53	30	46·5	35·8	41·4	+ 2·4	13	27	2	0·13	−0·47	*	*
	Ingatestone	51	33	45·4	?36·1	?40·9	+?1·0	10	?24	2	0·12	−0·38	14‡	25‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	52	27	48·3	35·9	42·4	+ 2·2	28	17	3	0·12	−0·41	15‡	28‡
	Loughborough	53	25	47·9	36·9	42·6	+ 3·6	26	14	2	0·10	−0·43	*	*
	Leicester	51	27	45·8	36·4	41·3	+ 2·8	11	24	3	0·17	−0·36	7	13
	Cheadle ℌ	50	26	45·3	35·0	40·4	+ 1·7	9	29	4	0·17	−0·57	*	*
	Churchstoke ℌ	52	26	48·1	35·0	41·8	+ 2·6	17	31	3	0·37	−0·36	19	35
	Hereford ℌ	55	27	49·2	33·0	41·4	+ 2·2	20	39	3	0·22	−0·33	*	*
	Cirencester	50	27	45·6	34·0	40·0	+ 0·8	10	32	2	0·18	−0·51	18	33
	Oxford	52	31	46·0	37·4	41·9	+ 1·9	11	20	2	0·14	−0·36	14	25
5. ENGLAND, S.	London	52	32	47·7	38·9	43·5	+ 3·2	24	9	2	0·21	−0·28	9‡	16‡
	Strathfield Turgiss ℌ	50	29	46·9	36·1	41·7	+ 1·7	14	25	2	0·20	−0·33	*	*
	Dungeness	49	32	47·3	40·7	44·1	+ 2·0	20	4	1	0·18	−0·60	*	*
	Hastings (St. Leonard's)	50	34	46·9	39·6	43·3	+ 1·0	19	7	1	0·01	−0·68	13	23
	Southampton	51	32	49·0	38·9	44·2	+ 3·8	28	9	1	0·16	−0·54	15	27
	Hurst Castle	50	34	48·7	39·7	44·4	+ 1·6	26	6	3	0·18	−0·48	*	*
	Stowell ℌ	51	32	47·0	37·5	42·4	+ 2·3	22	13	3	0·23	?	12‡	21‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	53	33	48·1	39·8	44·1	+ 3·6	24	6	7	3·47†	+1·27	*	*
	Glasgow	52	29	47·0	36·0	41·7	+ 2·1	14	26	7	0·66	−0·25	2	4
	Ardrossan	52	33	48·6	40·4	44·7	+ 5·2	26	4	4	0·28	−0·62	*	*
	Glenlee	50	25	46·6	35·1	41·1	+ 2·8	13	29	7	1·02	?	*	*
	Douglas (Isle of Man)	50	30	47·1	38·4	42·9	+ 1·4	21	10	5	0·76	−0·28	7	13
7. ENGLAND, N.W.	Newton Reigny (Penrith)	50	24	45·3	34·7	40·2	− 1·2	9	29	5	0·80	0·00	5	10
	Barrow-in-Furness	48	34	45·9	39·1	42·6	+ 0·6	16	8	7	1·09	+0·24	*	*
	Stonyhurst	49	27	44·4	35·2	40·0	+ 0·7	7	27	4	0·38	−0·72	9	17
	Blackpool ℌ	49	34	46·6	39·1	43·0	+ 1·1	19	8	5	0·52	−0·26	9	17
	Manchester	51	29	45·3	36·3	41·0	+ 0·8	9	24	4	0·31	−0·54	*	*
	Liverpool Obsy (Bidston)	54	35	48·0	40·4	44·4	+ 3·3	24	4	2	0·21	−0·41	*	*
	Llandudno ℌ	?54	37	48·3	41·4	45·0	+ 2·4	24	2	5	0·60	−0·18	8	13
	Holyhead	51	38	48·7	42·3	45·6	+ 1·3	25	0	5	0·65	−0·22	*	*
8. ENGLAND, S.W.	Llandovery	51	23	47·7	32·9	40·6	− 0·1	16	38	6	0·75	−0·45	*	*
	Pembroke	51	40	48·9	44·3	46·7	+ 3·0	33	0	6	0·38	−0·54	11	20
	Arlington (N. Devon)	49	31	46·1	37·9	42·2	+ 0·9	19	11	7	0·82	−0·61	*	*
	Cullompton ℌ	54	30	48·9	36·1	42·7	+ 0·6	30	17	3	0·16	−0·64	17	30
	Falmouth	52	38	48·2	41·2	44·8	− 0·1	23	2	5	0·32	−0·91	20	35
	Plymouth	52	34	49·3	40·2	44·9	+ 1·3	28	5	4	0·24	−0·58	21	37
	Prawle Point	50	33	49·0	38·6	44·0	+ 0·4	28	10	3	0·23	?	*	*
9. IRELAND, N.	Malin Head	51	35	47·6	39·0	44·5	+ 3·4	30	8	6	1·10	?	*	*
	Londonderry	52	30	46·9	38·0	42·6	+ 1·4	21	11	6	0·76	−0·19	*	*
	Mullaghmore	52	36	48·3	40·6	44·6	+ 2·5	24	4	6	0·92	−0·10	*	*
	Belmullet	50	38	49·0	42·9	46·2	+ 2·1	29	0	7	1·08	?	*	*
	Markree Castle	51	29	47·6	36·4	42·2	+ 1·0	25	16	6	0·94	+0·14	3	6
	Brookeborough	51	27	46·4	35·8	41·3	+ 1·1	12	26	3	0·40	?	*	*
	Armagh	51	29	46·6	37·4	42·2	+ 1·0	21	13	3	0·49	−0·15	3	6
	Donaghadee	51	30	47·0	36·7	42·1	+ 0·3	23	15	4	0·46	−0·29	*	*
	Edgeworthstown	49	27	45·9	32·9	39·7	− 0·5	11	37	4	0·55	−0·25	*	*
10. IRELAND, S.	Dublin	55	33	48·9	39·6	44·4	+ 2·4	27	7	4	0·33	−0·21	12	22
	Parsonstown	52	30	46·9	36·0	41·7	+ 1·0	14	26	4	0·57	−0·08	7	13
	Kilkenny	53	23	47·0	34·1	40·9	+ 0·1	14	33	3	0·38	−0·27	*	*
	Waterford	50	27	47·1	37·1	42·3	− 0·5	23	14	4	0·46	−0·45	*	*
	Roche's Point	50	33	48·0	40·4	44·4	+ 0·8	24	4	5	0·81	−0·26	*	*
	Valencia	52	37	50·1	43·6	47·0	+ 0·9	35	0	7	1·29	0·00	5	9
	Killarney	53	28	49·8	37·9	44·1	+ 0·1	32	11	5	1·32	?	*	*
	Foynes	52	35	48·4	39·7	44·2	+ 2·0	25	6	5	0·69	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	53	41	50·1	43·4	46·9	− 0·7	34	0	6	0·53	−0·37	*	*
	Jersey (Noirmont)	51	34	49·4	41·6	45·7	+ 1·4	28	1	4	0·42	−0·56	16	28

Stations marked ℌ are in connection with the Royal Meteorological Society, and those marked S with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Glencarron, Fort Augustus, and Laudale being so much greater than that at our other stations in "Scotland, N." and "Scotland, W.", and there being no averages available for the first and second of these stations, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in those districts.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

(OFFICIAL COPY.)

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S. SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, 6, NORTH BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

VOL. IV. No. 49.] *Second Series.* WEEK ENDING MONDAY, 12TH DECEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 196.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	46	11	36·8	26·4	31·8	7 below.	0	− 7	71	+40	1910	+ 39	793	+108
	1. SCOTLAND, EAST	46	16	38·7	27·5	33·3	4 below.	0	− 8	61	+23	2443	+ 65	840	+ 97
	2. ENGLAND, N.E.	52	22	40·4	30·0	35·4	4 below.	0	− 9	46	+12	2471	− 91	758	+119
	3. ENGLAND, EAST	55	22	42·4	30·5	36·7	3 below.	1	−10	42	+ 7	2780	−165	916	+245
	4. MIDLAND COUNTIES	59	22	43·7	31·2	37·7	1 below.	5	− 6	41	+ 4	2778	−128	935	+240
	5. ENGLAND, SOUTH	54	25	46·9	33·9	40·6	0 (average).	14	− 2	33	+ 6	3009	−203	699	+199
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	52	23	42·2	30·6	36·6	3 below.	1	−10	41	+13	2432	− 88	638	+138
	7. ENGLAND, N.W.	52	23	42·7	33·1	38·1	3 below.	2	−10	33	+ 7	2590	−100	644	+143
	8. ENGLAND, S.W.	55	25	48·7	37·1	43·1	1 above.	28	+10	14	− 1	2981	−149	521	+220
	9. IRELAND NORTH	53	21	43·5	32·4	38·2	3 below.	4	−10	36	+ 9	2723	+101	513	+ 31
	10. IRELAND, SOUTH	58	23	47·6	35·7	41·9	1 below.	16	− 5	28	+ 5	3105	+102	475	+138
	— CHANNEL ISLANDS	54	33	51·0	42·1	46·7	1 above.	33	+ 2	0	− 6	3348	−120	179	+ 73

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 196.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	7	13	3 more.	224	+ 7	38·8	− 4·1	4	8	973	−233	23	− 5
	1. SCOTLAND, EAST	5	7	0 (average).	170	−13	23·4	− 7·6	13	28	1361	− 11	32	0
	2. ENGLAND, N.E.	3	4	2 less.	156	−23	18·7	− 8·1	9	17	1350	+101	32	+ 3
	3. ENGLAND, EAST	4	4	2 less.	150	−34	18·1	− 6·9	7	14	1667	+147	39	+ 3
	4. MIDLAND COUNTIES	6	7	1 more.	137	−40	18·4	− 9·7	6	12	1519	+156	36	+ 4
	5. ENGLAND, SOUTH	6	11	4 more.	139	−30	20·7	− 6·0	6	11	1650	+192	39	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	6	20	8 more.	171	−24	36·5	− 7·7	7	13	1463	+150	34	+ 3
	7. ENGLAND, N.W.	6	12	4 more.	150	−33	23·7	−10·4	5	10	1495	+186	35	+ 4
	8. ENGLAND, S.W.	6	18	7 more.	147	−47	26·3	−15·5	11	21	1910	+334	45	+ 8
	9. IRELAND, NORTH	6	12	4 more.	174	−43	30·3	− 4·2	8	16	1348	+104	32	+ 3
	10. IRELAND, SOUTH	6	15	6 more.	148	−54	26·8	−10·7	7	13	1669	+250	39	+ 6
	— CHANNEL ISLANDS	7	13	4 more.	166	−45	23·6	− 8·9	10	18	2067	+207	49	+ 5

General Remarks.

Weather has been in a very changeable and unsettled condition over the whole Kingdom. Frequent and rather heavy falls of rain have occurred over the southern parts of the country, and rain, sleet, or snow in the northern districts.

Temperature has continued a little above the mean in "England, S.W." and the "Channel Islands" and has been equal to it in "England, S.", but in all other districts it has been below. In "Scotland, N." the deficit has been as much as 7°. The highest of the maxima, which were recorded on the 8th, varied from 46° to 52° in Scotland, from 53° to 58° in Ireland, and from 52° to 59° over England. The lowest of the minima were registered either on the 11th or 12th, when the thermometer fell to 11° in "Scotland, N.", 16° in "Scotland, E.", and to between 21° and 25° in all other districts excepting the "Channel Islands", where the lowest reading was 33°. The range of temperature has been large and the changes have been frequent and sudden.

Rainfall has been rather less than the mean in "England, N.E." and "England, E." and equal to it in "Scotland, E.", but more in all other districts.

Bright sunshine shows an increase in Scotland and in "Ireland, N.", but a decrease elsewhere. The percentage of the possible amount of duration ranged from 8 in "Scotland, N." and from 10 to 21 in most other districts, to 28 in "Scotland, E."

Depressions observed.—During the greater part of this period rather large depressions travelled north-eastwards to the northward of our Islands, while numerous subsidiary disturbances passed in a similar direction over our Islands and the North Sea. Fresh to strong Southerly to Westerly winds, at times reaching the force of a gale, were consequently most prevalent over the United Kingdom, but on the 10th and 11th the wind was generally light or moderate and more variable in direction. At the end of the period the barometer had risen considerably over the North Sea and our eastern districts, but another depression was approaching Ireland from the Atlantic and strong Southerly winds had again set in at our western and south-western stations.

A 52785. 350.—12/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

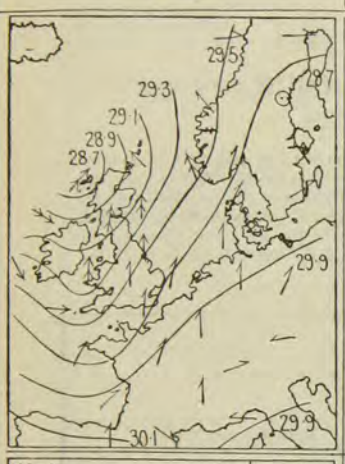
Weather

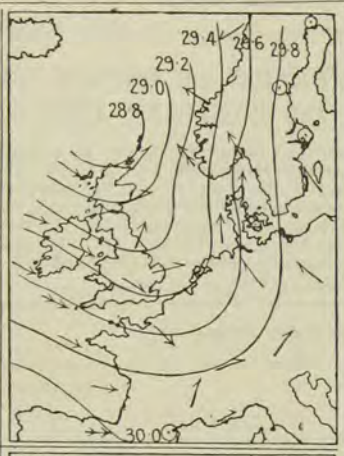
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, December 6.

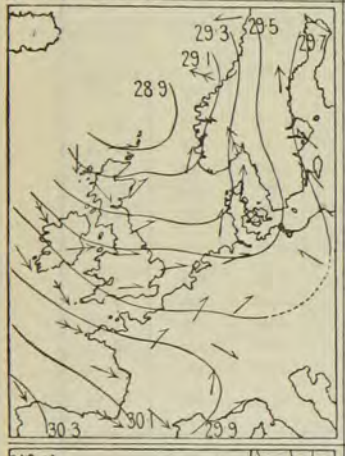
Weather cloudy or overcast at all but the Swedish and Danish stations, with rain in the west and north of our Islands. Rain extending over England later, and snow falling in Scotland and Ireland.

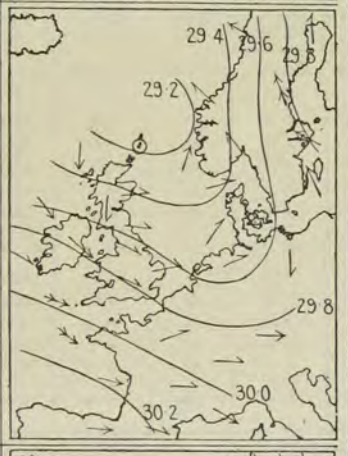
Temperature risen at all but the Irish stations; readings over our Islands ranging from 47° at Prawle Point to 39° at Cambridge and 37° at Parsonstown. Frost occurring at night in many parts of the Kingdom.

Wind Westerly or North-Westerly in Ireland, but Southerly elsewhere; strong to a gale in force over our Islands, the north of France, and the west of Norway. Subsequently veering to the Westward on all our western and southern coasts.

Sea rough on all but our east coasts.

Barometer falling generally. Pressure highest over Spain, and relatively high over Central Europe, with a deep depression off the north-west of Scotland, and some "V-shaped" secondary disturbances over our western coasts. Depressions subsequently moving north-eastwards or eastwards, and barometer rising in west.





Wednesday, December 7.

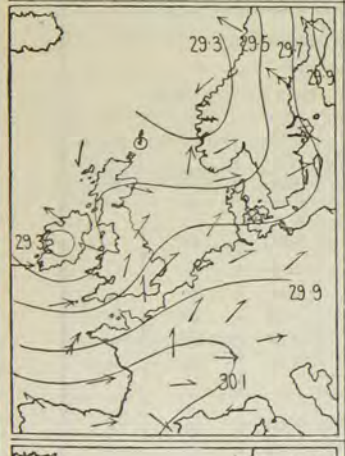
Weather fine in the east and south of our Islands as well as in France, but showery on our western coasts, and dull and rainy at some of the Scandinavian and German stations. Showers falling generally later, with snow in the western and northern districts.

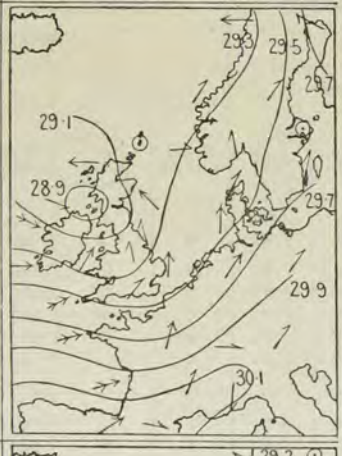
Temperature fallen several degrees in our Islands, but risen at the Continental stations; readings over the United Kingdom ranging at 8 a.m. from 45° at Scilly to 32° at Nairn, Aberdeen, Loughborough, and Oxford.

Wind strong to a gale from North-West on our western coasts, but moderate from West in the east, and strong from South or South-East on the eastern shores of the North Sea.

Sea rough on all but our east coasts.

Barometer rising in our Islands and France, but falling elsewhere. Pressure still highest over Spain, but depressions of previous day now lying over various parts of the North Sea. Rise extending later to the Norwegian and Danish stations.





Thursday, December 8.

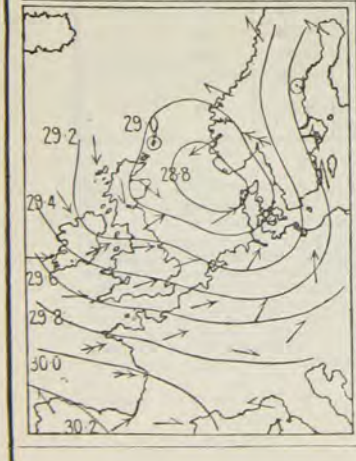
Weather cloudy in most places, with rain over the west and south of our Islands and the north of France. Snow falling in Scotland later, and rain in all other parts of the Kingdom.

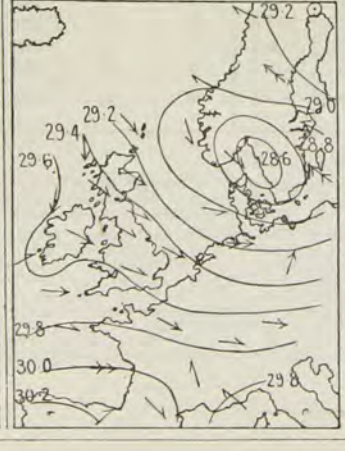
Temperature risen over Ireland, England, and the north of France, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 52° at Valencia, Roche's Point, and Scilly to 24° at Wick.

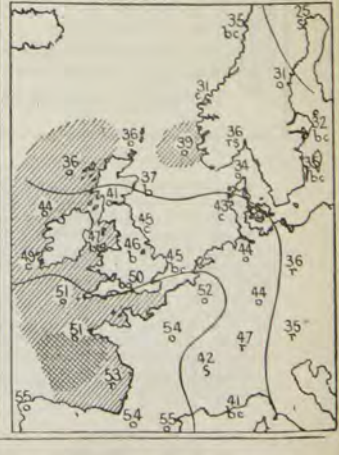
Wind strong from the South-Westward on our south-west coasts, but South-Easterly in the North-West, and light from the North-Westward in the east of Scotland. Subsequently backing to the South-Eastward in Scotland, and increasing in force.

Sea rough in the west and south.

Barometer falling quickly in the west and south-west of our Islands, but rising elsewhere. Pressure still highest over Spain, but relatively high over Northern Europe, with centre of rather deep depression over Ireland. New disturbance appearing in north-west later, and barometer falling generally.







Friday, December 9.

Weather fine over the greater part of England and Ireland, but cloudy elsewhere, with rain in Germany and snow at Wick and Lyons. Showers falling generally later, and heavy snow in the north of Scotland.

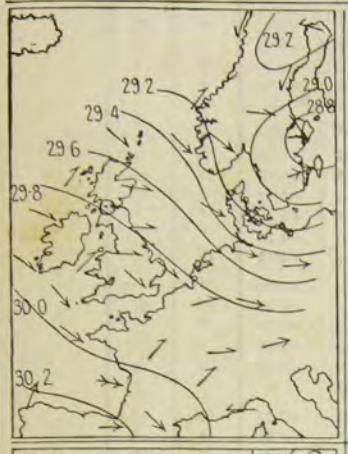
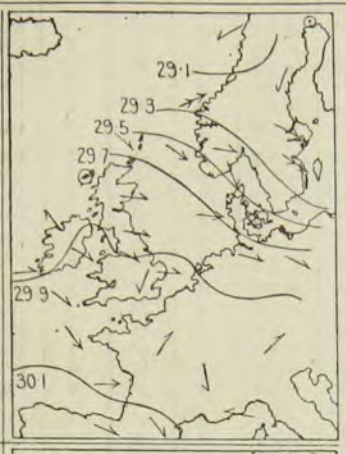
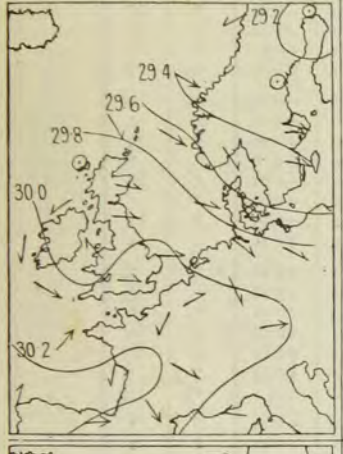
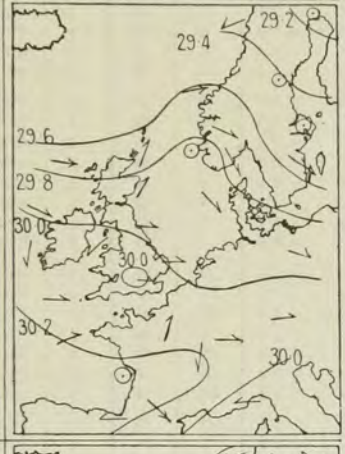
Temperature risen generally; readings over our Islands ranging at 8 a.m. from 54° at Jersey to 34° at Wick. Frost occurring in many places at night.

Wind moderate Northerly in Scotland, but strong to a gale from West or South-West over England and France, and from East in the south of Norway. Strong North-Westerly gale experienced later in the extreme north of Scotland.

Sea rough on all our western and southern coasts.

Barometer rising in the west and south of our Islands, but fallen elsewhere. Pressure still highest over Spain, but depression noticed off our north-west coast on previous day now lying off the south of Norway. Secondary disturbances appearing later over our western and northern districts.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather during the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, December 10.** *Weather* fair generally, but cloudy in many places, with rain in South Germany and the south-west of France. Snow showers falling later at some of the English stations. *Temperature* fallen several degrees; readings over our Islands ranging at 8 a.m. from 48° at Scilly and Jersey to 27° at Wick. Frost occurring in many places at night. *Wind* variable over the west of England, but chiefly Westerly or North-Westerly elsewhere; strong in force on the eastern shores of the North Sea. Subsequently backing to the Southward and South-Eastward in Ireland. *Sea* rough on our south-west coasts and also off the west of Norway. *Barometer* rising at all but the Swedish stations. Pressure still highest in Spain. Depression of previous two days now passing away over the Baltic, but small disturbance appearing off the west of Ireland during latter part of day.	
		**Sunday, December 11.** *Weather* dull and unsettled over the more central parts of our Islands, but fair in most other parts of western Europe. Showers falling later in many districts with snow in the extreme north. *Temperature* fallen at all but our south-western stations; readings over our Islands ranging at 8 a.m. from 50° at Scilly to 27° at York and Yarmouth and 24° at Wick. Frost occurring over Great Britain at night. *Wind* rather variable on our western coasts and South-Westerly over the Channel and north of France, but Westerly or North-Westerly elsewhere; light or moderate in force generally. *Sea* moderate to smooth generally, but rough off the west of Norway. *Barometer* rising generally. Pressure highest over Spain and the Bay of Biscay, and lowest over the north of Sweden, but small depression lying over the St. George's Channel. Depression subsequently moving eastwards, but new disturbance appearing in far north.	
		Monday, December 12. *Weather* dull in the south-west of our Islands and west of France, with rain at Brest and Lorient, but fair in most other localities; fog reported, however, over the east of England. Rain falling later at many of the western stations. *Temperature* risen in the north, but fallen elsewhere: readings over our Islands ranging at 8 a.m. from 49° at Scilly to 24° at York. *Wind* strong from South-East on our south-west coasts, and also over the Bay of Biscay, but light from West at our eastern stations. Subsequently increasing to gale from South-East in the west and north generally. *Sea* rough in the south-west and west. *Barometer* falling briskly on the west coasts of our Islands and France, but rising elsewhere. Pressure highest over France and Spain, with a rather deep depression to the south-westward of Ireland. Depression subsequently moving northwards, and barometer falling generally.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 193 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	46	27	37·3	30·0	33·8	− 6·6	0	57	7	1·13	+0·15	*	*
	Stornoway	46	24	39·4	29·7	34·7	− 5·3	0	51	7	1·02	−0·22	6	13
	Wick	45	21	37·0	25·1	31·3	− 8·3	0	75	7	1·70	+0·99	*	*
	Lairg ℌ	42	11	34·1	23·0	28·8	− 9·2	0	92	7	1·39	+0·44	*	*
	Glencarron ℌ	46	21	36·3	26·1	31·4	− 6·3	0	74	7	1·19†	?	1	2
	Fort Augustus ℌ	45	17	36·9	24·3	30·9	− 7·9	0	78	5	1·14†	?	*	*
1. SCOTLAND, E.	Nairn	45	23	37·6	28·3	33·1	− 5·3	0	62	7	0·54	+0·05	*	*
	Aberdeen	45	25	38·7	28·6	33·9	− 4·2	0	57	4	1·08	+0·33	23	49
	Braemar ℌ	42	16	36·4	23·8	30·4	− 4·1	0	81	4	0·66	−0·11	6‡	13‡
	Ochtertyre ℌ	43	20	39·6	23·9	32·1	− 5·3	0	69	5	1·15	+0·13	*	*
	Leith	46	27	41·0	32·0	36·7	− 1·9	0	37	3	0·40	−0·06	*	*
	Marchmont ℌ	43	24	38·7	28·3	33·7	− 3·0	0	58	6	0·63	−0·17	11	23
2. ENGLAND, N.E.	Alnwick Castle	44	25	38·3	29·0	33·8	− 4·5	0	57	3	0·72	−0·03	*	*
	Durham	48	25	38·9	29·2	34·2	− 4·4	0	55	4	0·41	−0·30	14	26
	Shields	49	27	41·4	30·7	36·3	− 3·3	0	40	3	0·32	−0·29	*	*
	Scarborough ℳ	48	23	40·2	29·7	35·2	− 3·5	0	48	4	0·42	−0·28	6‡	12‡
	York	52	22	41·7	29·0	35·6	− 3·3	0	45	3	0·45	−0·10	6	12
	Spurn Head	49	27	41·7	32·6	37·3	− 1·8	0	33	3	0·20	?	*	*
3. ENGLAND, E.	Hillington ℳ	52	22	40·3	29·4	35·1	− 3·6	0	48	4	0·36	−0·24	10	19
	Yarmouth	50	24	41·9	29·7	36·0	− 3·3	0	42	3	0·17	−0·52	*	*
	Geldeston	54	23	41·7	30·2	36·2	− 3·5	0	41	5	0·28	−0·30	9	17
	Cambridge	55	26	43·9	30·6	37·5	− 1·7	5	43	3	0·39	−0·06	6	11
	Rothamsted	53	24	43·2	30·8	37·3	− 2·2	3	42	5	0·70	+0·11	*	*
	Ingatestone	54	29	43·6	32·4	38·2	− 1·3	4	36	5	0·46	−0·02	4‡	7‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	52	22	44·1	28·9	36·8	− 2·9	6	49	4	0·53	−0·01	5‡	10‡
	Loughborough	53	25	44·3	30·6	37·7	− 0·8	6	43	4	0·55	+0·02	*	*
	Leicester	54	29	42·1	32·8	37·6	− 0·6	0	33	6	0·62	+0·09	6	12
	Cheadle ℳ	51	27	40·4	30·3	35·6	− 2·8	0	45	7	0·98	+0·23	*	*
	Churchstoke ℳ	59	27	44·7	31·2	38·2	− 0·5	8	41	5	0·63	−0·09	6	12
	Hereford ℳ	54	27	45·0	31·6	38·6	− 0·6	8	41	7	0·58	+0·04	*	*
	Cirencester	52	24	44·0	30·9	37·7	− 1·4	6	42	6	0·84	+0·16	7	13
	Oxford	53	29	44·9	32·9	39·1	− 0·6	8	35	5	0·81	+0·31	8	15
5. ENGLAND, S.	London	54	28	45·7	33·0	39·6	− 0·5	10	36	5	0·62	+0·14	3‡	5‡
	Strathfield Turgiss ℳ	54	25	45·9	32·8	39·6	− 0·1	11	37	4	0·63	+0·12	*	*
	Dungeness	51	25	46·3	33·1	40·0	− 1·8	12	36	5	1·01	+0·26	*	*
	Hastings (St. Leonard's)	52	30	46·8	34·3	40·8	− 1·0	13	32	7	1·27	+0·59	6	11
	Southampton	54	28	47·4	34·1	41·0	+ 1·0	15	33	7	1·02	+0·32	10	18
	Hurst Castle	51	30	48·7	36·0	42·6	+ 0·4	29	17	6	1·27	+0·62	*	*
	Stowell ℳ	54	26	47·3	34·0	40·9	+ 0·8	15	33	7	1·60	?	6‡	11‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	48	25	41·5	29·6	35·8	− 4·5	0	43	7	1·70†	−0·50	*	*
	Glasgow	48	24	42·2	27·7	35·2	− 4·2	1	51	6	1·79	+0·84	1	2
	Ardrossan	51	31	43·6	33·9	38·9	− 0·2	4	31	6	1·55	+0·65	*	*
	Glenlee	45	23	39·7	29·1	34·6	− 3·9	0	52	6	3·15	?	*	*
	Douglas (Isle of Man)	52	28	44·1	32·9	38·7	− 2·5	6	35	7	1·78	+0·75	12	24
7. ENGLAND, N.W.	Newton Reigny (Penrith)	47	23	38·2	28·7	33·6	− 4·7	0	59	6	1·37	+0·58	6	12
	Barrow-in-Furness	49	28	43·4	33·4	38·6	− 2·8	4	32	5	1·02	+0·22	*	*
	Stonyhurst	48	24	40·1	30·2	35·4	− 3·7	0	46	6	1·55	+0·45	4	8
	Blackpool ℳ	48	28	43·4	35·3	39·5	− 2·1	4	25	6	0·97	+0·20	6	12
	Manchester	50	26	41·0	31·2	36·3	− 3·6	0	40	7	1·45	+0·61	*	*
	Liverpool Obsy (Bidston)	52	27	43·9	34·0	39·2	− 1·5	5	31	7	0·73	+0·12	*	*
	Llandudno ℳ	52	29	45·4	34·8	40·3	− 1·8	10	29	7	1·12	+0·37	3	6
	Holyhead	52	32	46·0	37·0	41·7	− 2·4	11	22	7	1·26	+0·39	*	*
8. ENGLAND, S.W.	Llandovery	53	25	46·1	31·4	39·0	− 1·7	11	42	7	1·27	+0·06	*	*
	Pembroke	52	36	49·0	41·6	45·5	+ 2·0	26	1	6	1·28	+0·37	10	19
	Arlington (N. Devon)	51	31	47·0	35·3	41·4	+ 0·3	14	29	7	2·59	+1·17	*	*
	Cullompton ℳ	54	28	47·4	34·4	41·2	− 0·3	15	32	7	1·45	+0·65	8	15
	Falmouth	54	37	50·2	40·2	45·4	+ 0·8	31	5	4	2·04	+0·84	15	27
	Plymouth	55	35	50·6	39·2	45·1	+ 2·0	33	8	6	2·41	+1·59	12	21
	Prawle Point	52	32	50·3	37·4	44·1	+ 1·0	34	13	7	1·40	?	*	*
9. IRELAND, N.	Malin Head	50	33	44·0	35·4	39·9	− 1·1	6	26	6	0·79	?	*	*
	Londonderry	49	25	41·6	30·8	36·4	− 4·4	0	39	6	1·35	+0·44	*	*
	Mullaghmore	53	31	46·1	35·0	40·8	− 1·1	11	29	7	1·50	+0·52	*	*
	Belmullet	51	33	45·3	37·0	41·3	− 2·8	9	21	7	2·09	?	*	*
	Markree Castle	50	26	43·5	30·9	37·5	− 3·7	4	42	6	1·32	+0·53	9	18
	Brookeborough	48	21	41·5	28·5	35·3	− 4·9	0	47	5	1·59	?	*	*
	Armagh	51	22	43·3	30·0	36·9	− 3·8	4	45	5	0·70	+0·06	11	22
	Donaghadee	51	26	43·4	31·6	37·7	− 3·6	4	39	6	0·61	−0·03	*	*
	Edgeworthstown	51	21	42·7	32·1	37·6	− 2·5	2	37	4	0·93	+0·18	*	*
10. IRELAND, S.	Dublin	54	28	45·4	33·5	39·7	− 1·8	10	34	6	0·25	−0·29	7	13
	Parsonstown	53	28	44·9	33·3	39·3	− 1·1	8	34	6	0·93	+0·26	9	17
	Kilkenny	54	23	45·9	32·3	39·4	− 0·8	11	39	5	1·01	+0·33	*	*
	Waterford	55	31	47·6	34·9	41·5	− 1·0	16	31	6	1·23	+0·32	*	*
	Roche's Point	53	34	48·7	38·4	43·8	+ 0·6	28	10	5	1·82	+0·75	*	*
	Valencia	54	36	50·1	39·4	45·0	− 0·7	32	7	7	2·48	+1·18	9	17
	Killarney	58	31	49·7	36·2	43·2	− 0·4	33	16	5	2·39	?	*	*
	Foynes	54	32	48·3	37·7	43·2	+ 1·2	26	12	6	1·57	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	53	37	50·9	42·7	47·0	− 0·2	35	0	7	1·37	+0·46	*	*
	Jersey (Noirmont)	54	33	51·1	41·4	46·4	+ 2·3	33	2	6	1·25	+0·33	10	18

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Glencarron, Fort Augustus, and Laudale being so much greater than that at our other stations in "Scotland, N." and "Scotland, W.", and there being no averages available for the first and second of these stations, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in those districts.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S. SECRETARY.
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VOL. IV. No. 50.] *Second Series.* WEEK ENDING MONDAY, 19TH DECEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861-80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878-85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866-85, but the *Mean numbers of Rainy Days* are those for the eight years 1878-85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881-85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 200.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	50	20	41·4	31·2	36·5	3 below.	0	− 6	39	+ 6	1910	+ 34	832	+115
	1. SCOTLAND, EAST	50	27	41·9	32·3	37·3	0 (average).	0	− 7	33	− 8	2443	+ 58	873	+ 83
	2. ENGLAND, N.E.	51	23	43·3	33·0	38·4	0 (average).	4	− 4	34	− 3	2475	− 96	792	+109
	3. ENGLAND, EAST	54	24	45·5	33·9	40·0	1 above.	10	+ 1	33	− 5	2790	−164	949	+237
	4. MIDLAND COUNTIES	52	25	45·1	34·3	39·9	1 above.	9	− 1	31	− 8	2787	−129	966	+229
	5. ENGLAND, SOUTH	53	29	47·5	37·2	42·6	2 above.	24	+10	13	−17	3033	−193	712	+180
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	53	26	44·5	34·2	39·5	0 (average).	7	− 3	30	0	2439	− 90	663	+ 89
	7. ENGLAND, N.W.	55	25	44·6	36·2	40·6	0 (average).	7	− 4	24	− 4	2597	−104	668	+136
	8. ENGLAND, S.W.	53	29	48·3	38·8	43·7	2 above.	25	+ 9	9	− 8	3006	−143	530	+209
	9. IRELAND NORTH	51	26	44·9	35·2	40·2	1 below.	8	− 5	27	− 2	2731	+ 98	540	+ 26
	10. IRELAND, SOUTH	54	30	46·8	38·0	42·6	1 above.	21	+ 1	11	−13	3126	+107	486	+118
	— CHANNEL ISLANDS	53	39	50·1	43·9	47·1	2 above.	36	+ 8	0	− 7	3384	−109	179	+ 63

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 200.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	17	5 more.	230	+ 7	40·5	− 3·6	3	7	976	−234	23	− 5
	1. SCOTLAND, EAST	5	8	1 more.	175	−11	24·2	− 7·5	4	8	1365	− 16	32	0
	2. ENGLAND, N.E.	5	5	2 less.	161	−21	19·2	− 8·3	14	28	1384	+109	32	+ 3
	3. ENGLAND, EAST	6	5	1 less.	156	−32	18·6	− 7·0	14	26	1681	+152	39	+ 3
	4. MIDLAND COUNTIES	6	8	2 more.	143	−37	19·2	− 9·5	12	23	1531	+161	36	+ 4
	5. ENGLAND, SOUTH	6	7	1 more.	145	−28	21·4	− 5·9	14	25	1664	+197	39	+ 5
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	6	20	0 (average).	177	−22	38·5	− 7·1	9	17	1472	+152	34	+ 3
	7. ENGLAND, N.W.	7	12	4 more.	157	−30	24·9	−10·0	6	12	1501	+187	35	+ 4
	8. ENGLAND, S.W.	7	17	6 more.	154	−44	28·0	−14·8	17	31	1927	+342	45	+ 8
	9. IRELAND, NORTH	7	16	8 more.	181	−41	31·9	− 3·3	6	12	1354	+102	31	+ 2
	10. IRELAND, SOUTH	6	11	2 more.	154	−52	27·9	−10·5	14	27	1683	+251	39	+ 6
	— CHANNEL ISLANDS	7	15	6 more.	173	−43	25·1	− 8·3	19	34	2086	+216	48	+ 4

General Remarks.

Weather has continued dull and unsettled in all parts of the Kingdom. Frequent and rather heavy falls of rain occurred in most places during the greater part of the week, but towards its close showers of hail, sleet, and snow became prevalent.

Temperature has been 3° below the mean in "Scotland, N.", while in the south and south-west of England and in the "Channel Islands" it has been 2° above, but in the other districts it has not differed materially from the normal. The highest of the maxima, which were registered on irregular dates, varied from 50° in the north and east of Scotland to 55° in "England, N.W." The lowest of the minima, which were recorded either at the commencement or end of the period, ranged from 20° in "Scotland, N." to 30° in "Ireland, S." and to 39° in the "Channel Islands". The changes in temperature during this week were again somewhat frequent and sudden.

Rainfall has been more than the mean in almost all districts.

Bright sunshine has been more prevalent in most places than it was last week, the percentage of the possible amount of duration varying from 7 to 18 in Scotland, from 12 to 27 in Ireland, and from 12 to 31 over England.

Depressions observed.—The conditions during this week were again cyclonic, the barometer being generally highest over Spain, while large and deep depressions continued to travel in an easterly or north-easterly direction over or to the northward of our northern coasts, and subsidiary disturbances over Ireland and England. By the end of the period, however, the barometer was rising decidedly over our western districts, the low pressure systems had travelled to the eastern part of our area, and the winds over our Islands, which had previously been fresh or strong to a gale from between South and West, had veered to the Northward or North-Westward very generally, and at some of our western and north-western stations blew with the force of a gale.

A 52829. 350.—12/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

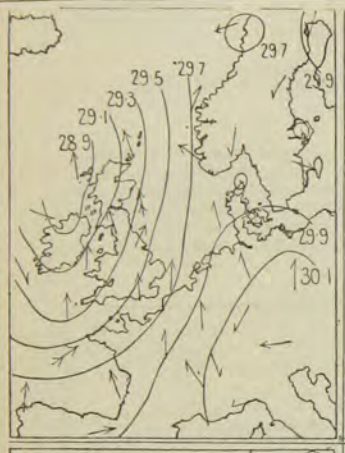
Weather

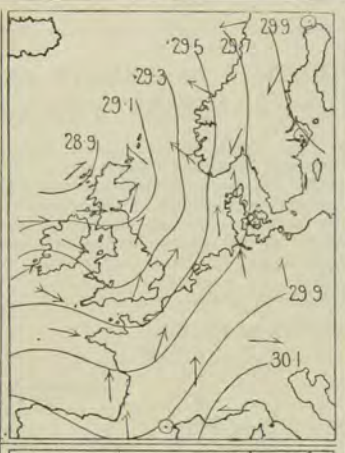
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Tuesday, December 13.

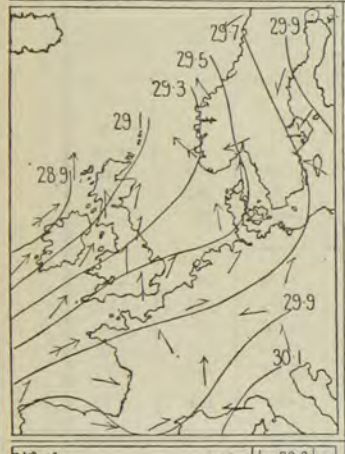
Weather dull over our Islands and France, with rain in most parts of the United Kingdom, but fair or fine elsewhere. Some improvement taking place on our west coasts later.

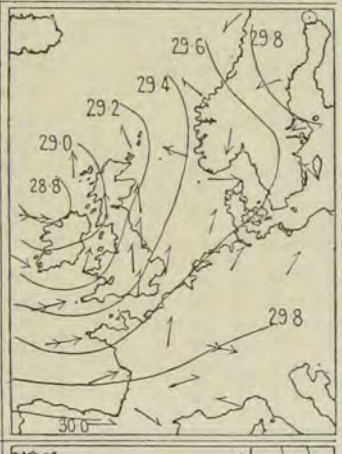
Temperature risen several degrees; readings over our Islands ranging at 8 a.m. from 52° at Scilly to 40° in the Shetlands. Fall taking place in west later.

Wind North-Westerly in the west of Ireland, but Southerly or South-Easterly elsewhere; strong to a gale in force over our Islands and also in the west of France. Subsequently veering to the Westward on our western and northern coasts, and moderating.

Sea high at Pembroke, and rough or rather so on all but our east coasts.

Barometer falling at all but the Scandinavian stations. Pressure highest over Germany and the south of France, and lowest in a deep depression lying off the west of Scotland, but secondary disturbances lying over Ireland. Main depression subsequently moving away northwards, but secondaries advancing eastwards over England.





Wednesday, December 14.

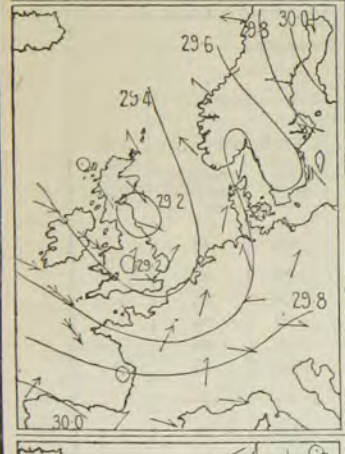
Weather fine over Great Britain, but dull and unsettled at most of the Continental stations, and showery in the west of Ireland. Rain falling over England later, and lightning seen in many places in evening.

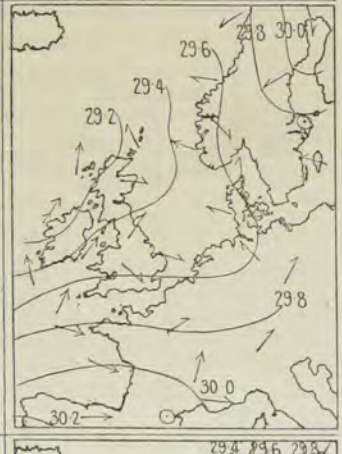
Temperature fallen several degrees in our Islands, but risen at the Continental stations; readings over the United Kingdom ranging at 8 a.m. from 47° at Valencia and Jersey to 34° at Aberdeen, York, and Cambridge. Frost occurring in the north of Scotland at night.

Wind Southerly or South-Westerly in our Islands, and Westerly in the west of France, but South-Easterly or Easterly in Scandinavia; strong to a gale in force on our west coasts and also in Norway. Subsequently increasing to a moderate gale at the Channel stations.

Sea rough or rather so on all our west and south-west coasts.

Barometer falling at all but the English and Scotch stations. Pressure highest over Spain and the western parts of the Mediterranean, with new depression off our extreme western coasts. Fall subsequently becoming general, and secondary disturbance appearing over the St. George's Channel.





Thursday, December 15.

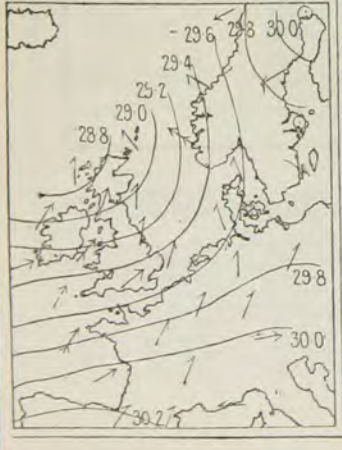
Weather fine at many of our western and northern stations, but changeable and showery elsewhere, with snow in Sweden. Subsequently becoming dull and rainy in west.

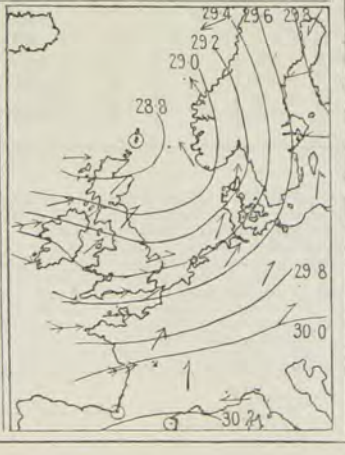
Temperature changed irregularly; readings over our Islands ranging at 8 a.m. from 50° at Scilly and Jersey to 31° at Stornoway.

Wind strong to gale from North-Westward on our western and south-western coasts, and from West or South-West in the south-east, but Southerly or South-Easterly on the eastern shores of the North Sea. Subsequently backing to the Southward in the extreme west, and increasing to a gale.

Sea high at some of our western stations, and rough in the west and south generally.

Barometer rising in the west and north of our Islands, but fallen elsewhere. Pressure still highest in Spain, but relatively high over the Gulf of Bothnia. Depressions of previous day now passing across England to the North Sea, but new disturbance appearing in west later.





Friday, December 16.

Weather fair at several of our western and northern stations, but showery in the north of Ireland, and rainy in the south and south-east of England. Showers falling in west and north later.

Temperature risen in most places; readings over our Islands ranging at 8 a.m. from 52° at Jersey and in London to 37° at Nairn. Maxima over England varying between 52° and 54°.

Wind strong to a gale from South-West over England, Ireland, and France, but moderate from the southward over Scotland and the North Sea, and South-Easterly or Easterly in Scandinavia. Subsequently veering to the Westward on our western coasts.

Sea high at Pembroke, Prawle Point, and Brest, and rough on all our western and southern coasts.

Barometer falling at all but the French and German stations. Pressure highest over Spain, and relatively high in the north of Sweden, with a large and rather deep depression off the north-west of Scotland. Depression subsequently moving eastwards and barometer rising in west.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

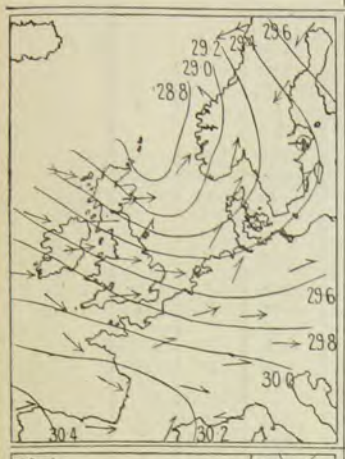
Weather

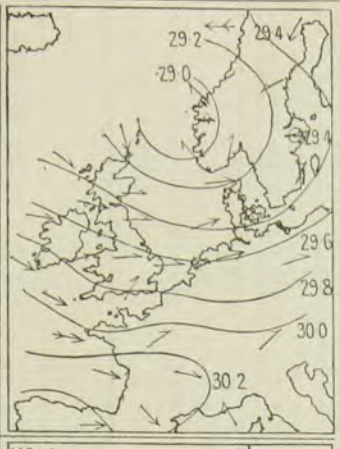
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Saturday, December 17.

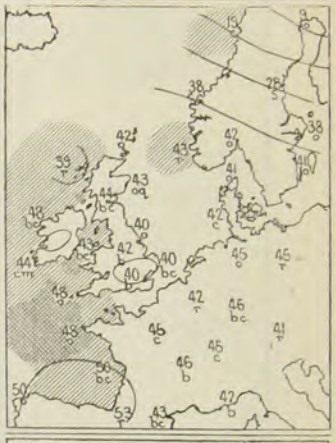
Weather fine over the greater part of England, Ireland, and France, but cloudy elsewhere; with rain in the north of Scotland as well as in Germany and Belgium. Showers falling in west and south later.

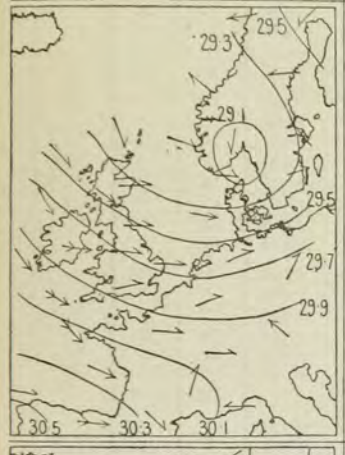
Temperature fallen several degrees over England and the north of France, but risen in most other localities; readings over our Islands ranging at 8 a.m. from 48° at Scilly to 38° at Parsonstown.

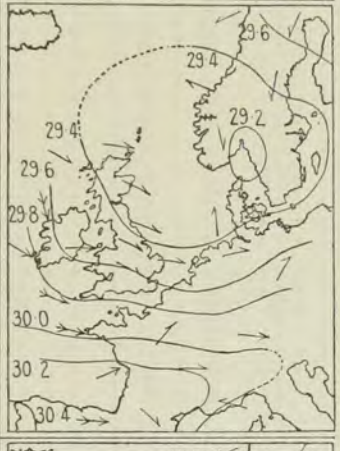
Wind strong Westerly in our Islands and France, with gales at several of the northern stations, but South-Westerly in Denmark and Easterly in Scandinavia. Gales in North subsiding later and wind veering to the North-Westward.

Sea high at Stornoway and Holyhead as well as at the mouth of the Channel, and rough in the west and south generally.

Barometer rising at all but the Scandinavian stations. Pressure remaining highest over Spain and relatively high in the north of Sweden, but depression of previous day moving away to the eastward of the Shetlands. Shallow secondary disturbances appearing over our western districts later.







Sunday, December 18.

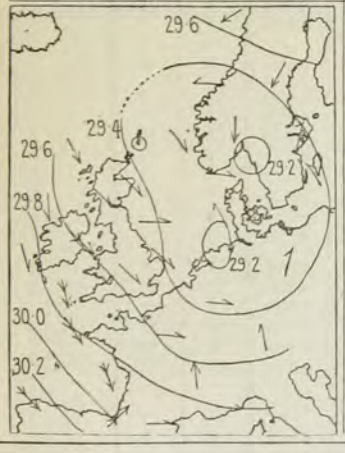
Weather fine over the greater part of our Islands, but showery on our extreme north-west coasts. Cloudy and unsettled at the Continental stations. Cold showers falling later in all parts of the Kingdom.

Temperature fallen in most places; readings over our Islands ranging at 8 a.m. from 47° at Scilly to 31° at Wick. Frost occurring at night in many parts of the Kingdom.

Wind chiefly Westerly or North-Westerly; light in force in the north and east, but strong in the west and south. Subsequently veering to the northward in the north of Ireland and increasing to a gale.

Sea rough on all our western and southern coasts.

Barometer falling a little in our Islands and France, but rising on the eastern shores of the North Sea. Pressure highest over Spain, but depression of previous two days now dispersing over Norway. Secondary disturbances appearing over our Islands later, and barometer falling more decidedly in west and south.



Monday, December 19.

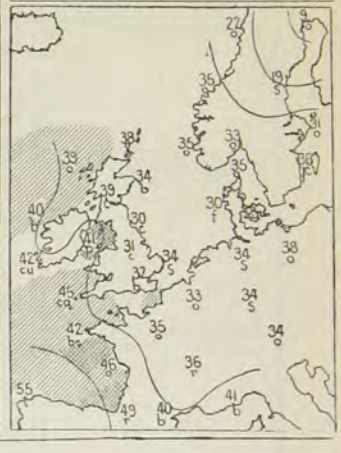
Weather changeable and unsettled generally, with cold showers in many places.

Temperature fallen at all but our northern stations; readings over our Islands ranging at 8 a.m. from 45° at Scilly to 29° at Loughborough. Slight frost occurring in many places at night.

Wind North-Westerly in our Islands and France, with gales on our west and south-west coasts, but moderate from South or South-West in Germany, Denmark, and the south of Sweden, and North-Easterly over the northern parts of Scandinavia. Gales in west subsiding later.

Sea very high at Holyhead, and rough, or rather so, on all our western and southern coasts.

Barometer rising in Scandinavia and the north of our Islands, but falling elsewhere. Pressure highest over Spain, with small shallow depression over the Skager Rack, and another off the north of Holland. Depressions subsequently uniting, but becoming shallower, and barometer rising generally.



Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 197 has been calcu[illegible]

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	46	30	43·1	35·9	39·6	− 0·5	3	23	6	1·05	+0·07	*	*
	Stornoway	48	26	42·9	31·1	37·2	− 2·4	3	40	6	2·47	+1·19	6	14
	Wick	45	24	41·6	30·3	36·2	− 2·9	0	41	6	1·31	+0·60	*	*
	Lairg	41	25	37·7	23·6	33·8	− 4·2	0	57	5	1·22	+0·27	*	*
	Glencarron	50	24	40·7	30·2	35·7	− 2·3	0	44	6	3·07†	?	0	0
	Fort Augustus	49	20	42·2	29·8	36·3	− 2·8	1	45	5	1·65†	?	*	*
1. SCOTLAND, E.	Nairn	48	30	41·3	32·4	37·0	− 1·1	0	35	6	0·73	+0·25	*	*
	Aberdeen	46	29	41·9	32·1	37·2	− 0·7	0	34	6	1·08	+0·33	7	15
	Braemar	43	29	39·4	31·3	35·5	+ 0·8	0	46	6	0·85	+0·10	2‡	4‡
	Ochtertyre	46	27	42·9	32·0	37·7	0·0	3	37	5	0·96	−0·07	*	*
	Leith	50	29	45·0	34·0	39·7	+ 1·5	8	32	4	0·24	−0·21	*	*
	Marchmont	45	28	40·9	31·7	36·5	+ 0·3	0	39	5	0·72	−0·07	3	6
2. ENGLAND, N.E.	Alnwick Castle	46	31	41·7	33·9	38·0	− 0·1	0	28	6	0·90	+0·15	*	*
	Durham	48	27	42·0	31·9	37·2	− 1·0	0	34	5	0·40	−0·31	17	35
	Shields	49	27	43·7	33·4	38·8	− 0·4	5	33	5	0·58	−0·03	*	*
	Scarborough	49	30	43·3	32·7	38·2	+ 0·1	4	35	5	0·49	−0·19	12*‡	24*‡
	York	51	23	45·0	31·9	38·7	0·0	8	39	6	0·26	−0·29	13	26
	Spurn Head	50	27	44·1	34·3	39·4	+ 1·0	6	30	5	0·24	?	*	*
3. ENGLAND, E.	Hillington	51	29	44·9	33·2	39·3	+ 0·9	8	35	6	0·20	−0·38	18	35
	Yarmouth	50	24	44·1	33·1	38·8	− 0·3	6	34	6	0·68	+0·01	*	*
	Geldeston	53	27	45·5	33·5	39·7	+ 0·5	10	34	6	0·42	−0·11	15	28
	Cambridge	54	29	46·7	33·0	40·1	+ 1·2	13	37	6	0·45	0·00	10	19
	Rothamsted	52	30	46·0	34·8	40·6	+ 2·4	11	29	7	0·56	−0·02	*	*
	Ingatestone	52	32	46·0	35·9	41·2	+ 1·9	11	26	5	0·57	+0·12	12‡	23‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	51	25	45·9	32·7	39·6	+ 0·4	11	37	5	0·23	−0·30	12‡	23‡
	Loughborough	51	29	46·3	34·4	40·6	+ 2·4	12	31	5	0·51	−0·02	*	*
	Leicester	51	26	44·4	35·0	39·9	+ 1·9	7	28	6	0·42	−0·11	11	21
	Cheadle	49	26	42·5	32·6	37·8	− 0·3	1	35	7	0·98	+0·24	*	*
	Churchstoke	51	29	44·0	34·7	39·7	+ 1·0	6	29	6	1·72	+1·01	10	19
	Hereford	51	31	46·6	34·7	40·9	+ 1·8	13	31	7	1·06	+0·52	*	*
	Cirencester	50	30	44·9	34·3	39·8	+ 0·9	8	30	6	0·63	−0·04	11	21
	Oxford	52	32	46·1	35·9	41·2	+ 1·9	11	26	6	0·49	+0·01	16	30
5. ENGLAND, S.	London	53	29	47·7	35·3	41·8	+ 2·3	16	30	6	0·79	+0·31	7‡	15‡
	Strathfield Turgiss	53	31	47·2	35·6	41·6	+ 2·4	15	27	6	0·54	+0·04	*	*
	Dungeness	51	31	47·0	37·7	42·7	+ 1·1	23	12	5	0·41	−0·31	*	*
	Hastings (St. Leonard's)	51	32	46·6	39·0	43·0	+ 1·4	20	8	6	0·63	−0·05	13	24
	Southampton	52	33	48·4	39·1	43·9	+ 4·4	25	8	7	0·86	+0·14	20	37
	Hurst Castle	51	32	48·6	37·9	43·5	+ 1·6	28	11	7	0·65	+0·01	*	*
	Stowell	52	31	46·7	35·8	41·5	+ 1·4	13	27	7	0·97	?	14‡	26‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	49	26	43·7	33·3	38·7	− 1·5	5	33	6	4·19†	+2·01	*	*
	Glasgow	48	26	43·7	30·6	37·2	− 1·9	5	41	5	1·07	+0·09	1	2
	Ardrossan	53	31	45·4	36·0	40·9	+ 1·9	10	25	6	0·80	−0·10	*	*
	Glenlee	49	26	43·5	32·7	38·3	− 0·3	4	35	7	3·09	?	*	*
	Douglas (Isle of Man)	51	34	46·0	38·5	42·4	+ 1·2	18	10	5	1·00	−0·02	16	32
7. ENGLAND, N.W.	Newton Reigny (Penrith)	48	25	42·4	32·0	37·4	− 0·5	1	37	7	1·19	+0·40	4	8
	Barrow-in-Furness	48	30	44·0	36·7	40·5	− 0·6	6	21	6	1·17	+0·39	*	*
	Stonyhurst	50	28	42·9	34·2	38·7	− 0·3	3	29	7	1·25	+0·15	9	18
	Blackpool	49	33	44·1	37·9	41·2	− 0·1	6	17	6	1·02	+0·27	7	14
	Manchester	50	27	43·4	34·6	39·2	− 0·3	4	28	7	1·24	+0·40	*	*
	Liverpool Obsy (Bidston)	52	28	46·1	36·1	41·3	+ 0·7	11	25	7	0·99	+0·39	*	*
	Llandudno	55	34	46·9	38·7	43·0	+ 0·8	21	9	7	1·34	+0·60	4	8
	Holyhead	50	32	46·7	39·6	43·3	− 0·7	19	7	6	1·66	+0·80	*	*
8. ENGLAND, S.W.	Llandovery	52	29	48·3	33·0	41·0	+ 0·4	18	38	7	2·74	+1·51	*	*
	Pembroke	51	38	47·9	42·0	45·1	+ 2·0	22	0	7	1·03	+0·12	15	28
	Arlington (N. Devon)	51	35	46·7	38·3	42·7	+ 2·0	20	10	7	1·99	+0·59	*	*
	Cullompton	53	33	48·3	37·1	42·9	+ 1·7	27	14	7	1·24	+0·43	16	30
	Falmouth	52	37	48·5	40·5	44·7	+ 0·4	25	4	7	1·75	+0·55	19	35
	Plymouth	53	35	49·2	40·7	45·1	+ 2·1	27	4	7	1·66	+0·83	17	31
	Prawle Point	52	33	49·0	40·0	44·7	+ 1·8	27	6	7	1·24	?	*	*
9. IRELAND, N.	Malin Head	49	31	45·0	35·0	40·2	− 0·5	8	28	7	1·30	?	*	*
	Londonderry	51	33	44·3	35·1	39·9	− 0·8	6	27	7	1·68	+0·78	*	*
	Mullaghmore	50	32	46·0	36·7	41·5	− 0·3	11	22	7	2·22	+1·27	*	*
	Belmullet	50	36	46·1	38·7	42·6	− 1·3	18	9	7	2·44	?	*	*
	Markree Castle	50	32	45·6	35·2	40·6	− 0·4	10	28	7	2·28	+1·49	6	12
	Brookeborough	50	32	43·6	33·8	38·9	− 1·1	4	31	7	1·69	?	*	*
	Armagh	49	32	44·6	35·4	40·2	− 0·2	7	26	6	0·86	+0·22	6	12
	Donaghadee	51	26	45·3	34·0	39·9	− 1·4	9	32	6	0·71	+0·07	*	*
	Edgeworthstown	50	28	43·4	32·9	38·4	− 1·6	4	35	6	1·00	+0·29	*	*
10. IRELAND, S.	Dublin	53	33	46·5	37·1	42·0	+ 0·8	13	14	6	0·50	−0·05	19	37
	Parsonstown	51	33	45·1	35·6	40·5	+ 0·3	9	26	6	0·96	+0·28	14	27
	Kilkenny	51	30	45·4	36·1	40·9	+ 0·9	10	24	5	0·80	+0·10	*	*
	Waterford	51	32	46·4	37·3	42·0	− 0·3	12	13	5	0·74	−0·17	*	*
	Roche's Point	50	37	47·1	40·9	44·1	+ 1·0	19	3	5	0·95	−0·13	*	*
	Valencia	53	38	48·7	40·9	45·0	+ 4·4	26	3	7	1·48	+0·17	9	17
	Killarney	54	35	48·8	38·2	43·7	+ 0·5	28	11	7	1·91	?	*	*
	Foynes	52	34	46·3	37·9	42·3	+ 0·4	19	11	6	1·52	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	52	42	49·9	43·9	47·0	− 0·1	35	0	7	1·04	+0·12	*	*
	Jersey (Noirmont)	53	39	50·3	43·9	47·2	+ 3·6	36	0	7	1·87	+1·01	19	34

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked 𝒮 with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Glencarron, Fort Augustus, and Laudale being so much greater than that at our other stations in "Scotland, N." and "Scotland, W.", and there being no averages available for the first and second of these stations, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in those districts.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S. SECRETARY.
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VOL. IV. No. 51.] *Second Series.* WEEK ENDING MONDAY, 26TH DECEMBER, 1887. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

DISTRICTS. (See p. 204.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
	°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	45	17	39·2	28·7	34·2	5 below.	0	− 6	55	+21	1910	+ 28	887	+134
1. SCOTLAND, EAST	49	9	39·2	28·8	34·2	3 below.	0	− 7	55	+12	2443	+ 52	928	+ 97
2. ENGLAND, N.E.	42	24	38·2	30·4	34·4	4 below.	0	− 7	53	+14	2475	−100	845	+124
3. ENGLAND, EAST	43	24	36·9	29·0	33·1	6 below.	0	− 8	62	+22	2790	−170	1011	+257
4. MIDLAND COUNTIES	43	19	38·1	28·8	33·6	5 below.	0	− 9	59	+18	2787	−135	1025	+249
5. ENGLAND, SOUTH	45	23	38·2	29·1	33·8	6 below.	0	− 8	57	+25	3033	−204	769	+206
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	46	16	40·8	28·8	35·1	5 below.	0	− 9	48	+16	2439	− 98	716	+108
7. ENGLAND, N.W.	46	19	39·0	31·3	35·3	5 below.	0	−10	47	+17	2597	−112	715	+154
8. ENGLAND, S.W.	49	21	40·9	30·9	36·1	6 below.	0	−14	41	+23	3006	−159	571	+235
9. IRELAND, NORTH	47	23	42·4	33·9	38·4	3 below.	1	−11	30	0	2732	+ 88	570	+ 28
10. IRELAND, SOUTH	49	21	42·0	31·9	37·2	5 below.	0	−19	34	+10	3126	+ 83	520	+129
— CHANNEL ISLANDS	48	35	44·6	38·2	41·5	4 below.	7	−18	16	+ 4	3391	−128	195	+ 73

Rainfall. Bright Sunshine.

DISTRICTS. (See p. 204.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
		10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts. 0. SCOTLAND, NORTH	6	6	4 less.	235 *	+ 7	41·1	− 3·9	8	19	984	−229	23	− 5
1. SCOTLAND, EAST	4	4	3 less.	179	−11	24·6	− 7·8	3	7	1368	− 20	31	− 1
2. ENGLAND, N.E.	7	9	3 more.	168	−18	20·1	− 8·0	9	17	1373	+111	31	+ 2
3. ENGLAND, EAST	5	3	3 less.	161	−30	18·9	− 7·2	9	17	1690	+152	39	+ 4
4. MIDLAND COUNTIES	2	1	5 less.	145	−38	19·3	−10·0	8	16	1539	+160	35	+ 3
5. ENGLAND, SOUTH	3	1	5 less.	147	−29	21·5	− 6·5	7	14	1671	+194	38	+ 4
Principal Grazing, &c. Districts. 6. SCOTLAND, WEST	2	2	8 less.	179	−24	38·7	− 8·0	9	17	1481	+156	34	+ 4
7. ENGLAND, N.W.	3	2	7 less.	160	−31	25·1	−10·6	15	29	1516	+197	35	+ 5
8. ENGLAND, S.W.	3	1	9 less.	157	−45	28·1	−15·8	17	31	1944	+352	45	+ 8
9. IRELAND, NORTH	5	2	6 less.	186	−41	32·1	− 3·9	10	20	1364	+107	31	+ 2
10. IRELAND, SOUTH	2	1	8 less.	156	−54	28·0	−11·3	17	33	1700	+261	39	+ 6
— CHANNEL ISLANDS	5	5	4 less.	178	−43	25·6	− 8·6	12	21	2098	+219	48	+ 5

General Remarks.

Weather has been somewhat finer generally than that reported of late. Over the greater part of Ireland and Scotland, however, as well as over the north of England, showers of cold rain, sleet, or snow have been very prevalent. In the southern, central, and south-western parts of England the weather has been comparatively dry.

Temperature has been below the mean in all districts, the deficit being as much as 5° or 6° in most parts of England, and 3° to 5° over Ireland and Scotland. The highest of the maxima, which were recorded either on the 23rd or 24th, ranged from 42° in "England, N.E." to 49° in "Scotland, E.", "England, S.W.", and "Ireland, S." The lowest of the minima, which were registered on the 22nd in Scotland and on various dates in England and Ireland, ranged from 9° to 17° in Scotland, from 21° to 23° in Ireland, and from 19° to 24° over England. In the "Channel Islands" the lowest reading was 35°.

Rainfall has been more than the mean in "England, N.E.", but less in all other districts.

Bright sunshine has been less prevalent than it was last week in the "Wheat-producing" districts, but rather more so in most of the "Grazing" districts. The percentage of the possible amount of duration ranged from 7 to 19 in Scotland, from 20 to 33 in Ireland, and from 14 to 31 in England.

Depressions observed.—During the early part of this period a depression was travelling slowly southwards and south-eastwards over Denmark and Germany, while the barometer over the United Kingdom was steadily rising. As the week progressed the conditions over our Islands became anticyclonic, while depressions were shown both over Scandinavia and in the extreme south-eastern part of our area. By the end of the period the highest pressures were transferred to the north of Sweden, while a depression lay over Germany and a very shallow disturbance over Scotland. Northerly to North-Westerly winds were most general over our Islands and their neighbourhood, and though light or moderate on most days, they were strong to a gale on the 20th, and subsequently freshened slightly on our east and south-east coasts.

* This value has been altered owing to the receipt of further information.

A 52882. 350.—12/87. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts.

PRESSURE AND WIND.

8 a.m.	6 p.m.

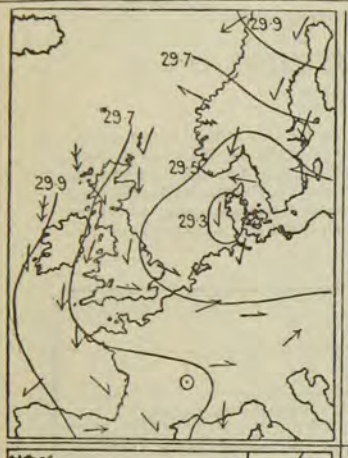
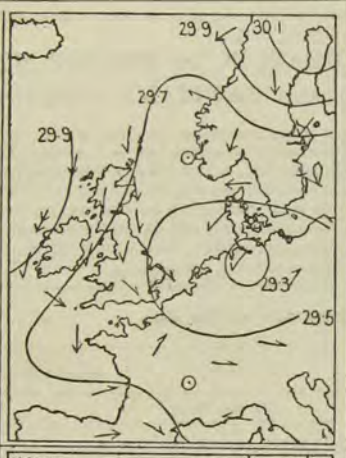
Weather

During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.

Tuesday, December 20.

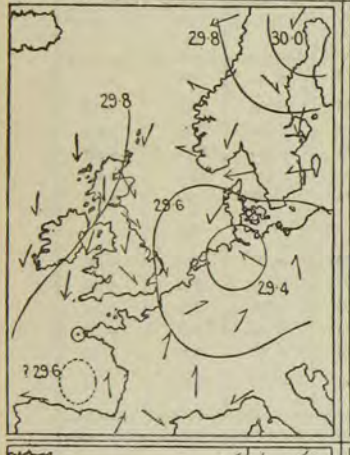
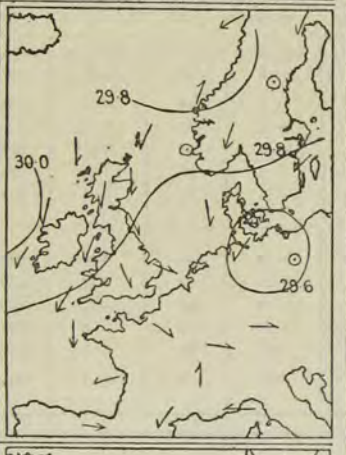
Weather cloudy in most places, with hail or sleet showers in many parts of our Islands, and snow at some of the Continental stations.

Temperature changed little and irregularly; readings over our Islands ranging at 8 a.m. from 45° at Scilly to 28° at Dungeness. Maxima below 40° at all but our western and south-western stations, and frost occurring generally at night.

Wind Northerly or North-Westerly over the United Kingdom and France; strong to a gale on our extreme north-west coasts. South-Westerly in Germany and Easterly or North-Easterly in Scandinavia.

Sea rough at some of our western and northern stations, as well as in the Bay of Biscay.

Barometer rising at all but our eastern, southern, and the French stations. Pressure high in the north of Sweden, and relatively high to the westward and south-westward of our Islands, but shallow depression lying over Denmark. Depression subsequently moving southwards.

Wednesday, December 21.

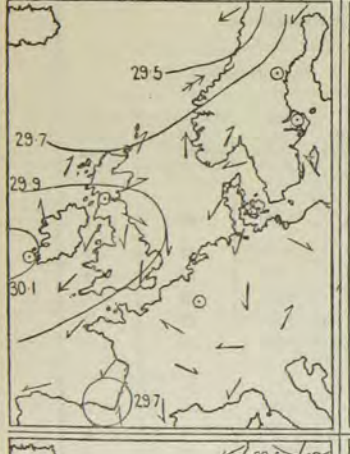
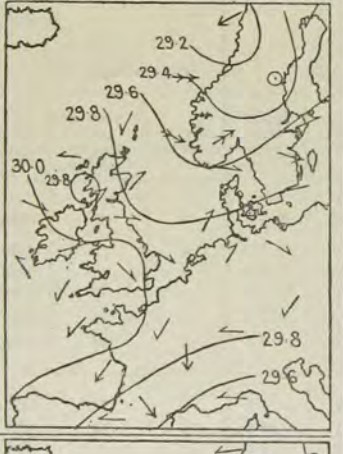
Weather fine over the southern parts of our Islands, but snow or hail showers reported in the north. Cloudy at most of the Continental stations.

Temperature fallen generally; readings over our Islands ranging at 8 a.m. from 40° at Scilly to 27° at Parsonstown. Maxima below 40° in most places, with frost at night.

Wind moderate to strong from the northward over our Islands and the north of France, but North-Easterly in Scandinavia, and Southerly or South-Westerly over Germany and the south of France. Subsequently veering to North-East on our southern coasts.

Sea rather rough at the mouth of the Channel as well as at Skagen and Spurn Head.

Barometer rising at all but the southern French stations. Pressure highest over the Gulf of Bothnia, but relatively high to the westward of our Islands; depression of previous day now moving southwards over North Germany. New but shallow disturbance appearing off west of Norway in evening.

Thursday, December 22.

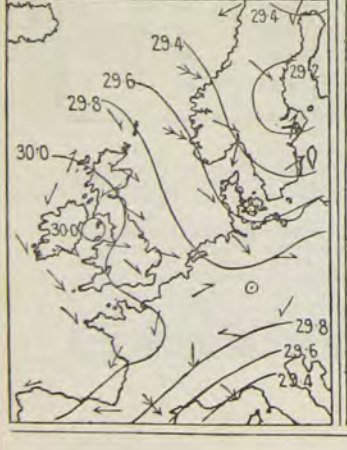
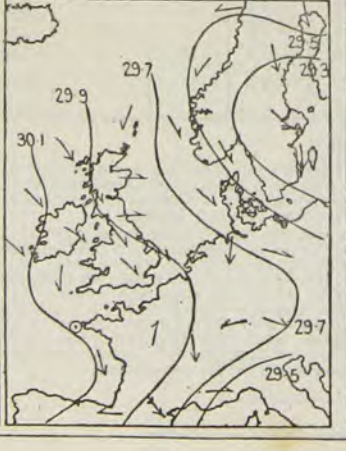
Weather fine over the greater part of our Islands as well as in the Netherlands and north of France, but cloudy elsewhere, with rain in the Shetlands, Hebrides, and south of France. Rain falling later at many of our north-western stations.

Temperature risen a little in the extreme north, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 40° at Stornoway and Scilly to 28° at Aberdeen and 22° at Parsonstown. Frost occurring in many parts of the Kingdom at night.

Wind moderate South-Westerly in the north of Scotland, and strong to a gale from the same quarter in the west of Norway, but Northerly or North-Easterly at our southern and the French stations. Subsequently shifting to the North-Eastward in the north of Scotland.

Sea slight or smooth in most places.

Barometer falling in the extreme north, but rising elsewhere. Anticyclone lying over our west and south-west coasts, with a depression off the north-west of Norway and a small shallow disturbance over the south-west of France. Small secondary system subsequently appearing over the west of Scotland.

Friday, December 23.

Weather dull at several of our western and southern stations, with rain at Pembroke, but fair or fine elsewhere. Rain and snow falling in Scotland later.

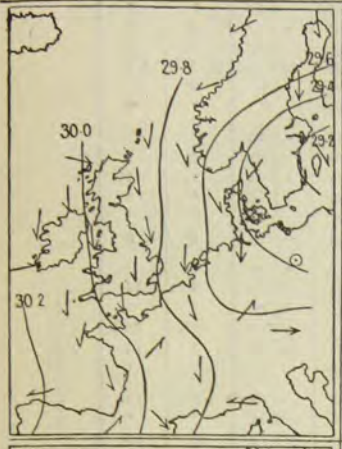
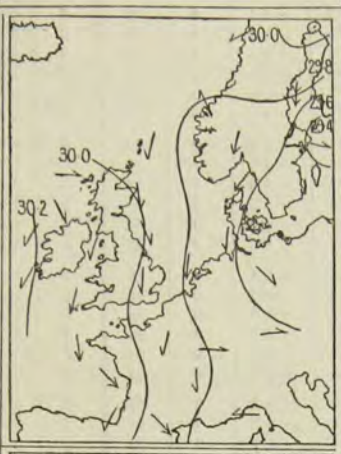
Temperature risen over the greater part of the United Kingdom, but fallen elsewhere; readings over our Islands ranging at 8 a.m. from 47° at Scilly to 28° at Dungeness. Frost occurring over Great Britain at night.

Wind chiefly North-Westerly over our Islands and the eastern shores of the North Sea, but variable at some of our north-western stations. Strong North-Easterly in France.

Sea rough off the west of Norway, but slight or smooth elsewhere.

Barometer rising in the west and north of our Islands, and also in France, but fallen elsewhere. Anticyclone lying to the westward and south-westward of us, but depression of previous day now moving south-eastwards towards the Baltic. Small secondary disturbance subsequently travelling south-eastward along the north-east of Scotland, and barometer falling in north.

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Saturday, December 24.** *Weather* cloudy in most places, with snow over Germany, as well as at Wisby and Paris. Snow showers falling later at many of our eastern stations. *Temperature* risen in our Islands and France, but fallen in Sweden and Denmark; readings over the United Kingdom ranging at 8 a.m. from 46° at Scilly to 33° at Sumburgh Head. Frost occurring over England at night. *Wind* North-Easterly in the north of Scandinavia, but Northerly and North-Westerly elsewhere; moderate or fresh in force generally. *Sea* moderate to smooth, except at Spurn Head and Cape Gris Nez. *Barometer* rising in the extreme north, but falling in most other regions. Pressure highest to the south-westward of our Islands and depression of previous day now lying over the Baltic. Depression subsequently moving south-eastwards, and barometer rising generally.	
		Sunday, December 25. *Weather* fine over the greater part of Ireland and England as well as on the eastern shores of the North Sea, but cloudy elsewhere, with rain at Aberdeen and Biarritz. Showers of rain or sleet falling later in many parts of the United Kingdom. *Temperature* risen in Sweden, the north of our Islands, and the south of France, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 44° at Malin Head and Mullaghmore to 30° at Dungeness and in London. Frost occurring in many places at night. *Wind* moderate Northerly and North-Westerly in our Islands, but North-Easterly in Scandinavia and the west of France. *Sea* rough at Spurn Head, and rather rough at Cape Gris Nez, but moderate to smooth elsewhere. *Barometer* falling in the north and east of our Islands and the west of France, but rising elsewhere. Pressure high in the north of Scandinavia, and also to the westward and south-westward of the United Kingdom, and lowest over the Baltic. Shallow disturbances appearing over North Sea later.	
		Monday, December 26. *Weather* fine over Ireland, England, Norway, Belgium, and the north of France, but dull elsewhere, with rain in the north of Scotland. Showers of sleet or snow falling in the east later. *Temperature* fallen generally; readings over our Islands ranging at 8 a.m. from 43° at Scilly to 27° at Loughborough and Cambridge. Sharp frost occurring over England at night. *Wind* strong Northerly on the eastern shores of the North Sea, and light or moderate from the North-Eastward in the south of our Islands and north of France, but variable at several of our north-western stations, and Southerly in the south-west of France. *Sea* slight or smooth. *Barometer* falling in Spain, France, and the south-west of our Islands, but rising elsewhere. Pressure highest over the north of Sweden, with areas of relatively low readings over our northern coasts, Spain, and Germany. Low pressure systems in north disappearing later.	

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	42	28	38·6	30·7	34·8	− 5·3	0	50	7	0·63	−0·32	*	*
	Stornoway	45	27	41·6	31·7	36·9	− 2·4	0	36	6	0·36	−0·90	10	23
	Wick	43	23	39·6	30·0	35·0	− 4·1	0	49	6	0·38	−0·30	*	*
	Lairg ℳ	39	17	36·4	25·9	31·4	− 6·3	0	74	5	1·03	+0·13	*	*
	Glencarron ℳ	43	22	39·1	27·8	33·7	− 4·2	0	58	6	0·88†	?	6	14
	Fort Augustus ℳ	44	18	39·8	25·8	35·1	− 5·8	0	62	3	0·19†	?	*	*
1. SCOTLAND, E.	Nairn	42	27	39·1	32·0	35·7	− 2·4	0	44	4	0·32	−0·16	*	*
	Aberdeen	41	22	38·6	29·6	34·3	− 3·3	0	54	7	0·74	+0·03	2	4
	Braemar ℳ	42	9	38·0	25·8	32·1	− 2·4	0	69	5	0·80	+0·09	3‡	7‡
	Ochtertyre ℳ	49	20	42·4	26·9	35·0	− 2·5	1	56	2	0·03	−1·03	*	*
	Leith	42	27	39·9	30·7	35·5	− 2·7	0	46	2	0·07	−0·38	*	*
	Marchmont ℳ	39	22	37·3	27·7	32·7	− 3·3	0	65	4	0·34	−0·43	4	9
2. ENGLAND, N.E.	Alnwick Castle	41	24	37·7	29·6	33·8	− 4·3	0	57	7	1·77	+1·06	*	*
	Durham	40	25	37·5	29·8	33·8	− 4·3	0	57	6	1·09	+0·41	8	16
	Shields	40	25	38·1	29·7	34·1	− 5·0	0	55	6	1·21	+0·62	*	*
	Scarborough ℳ	42	28	39·5	31·0	35·4	− 2·7	0	46	7	0·74	+0·12	10*‡	20*‡
	York	41	27	38·0	29·7	34·0	− 4·3	0	56	6	0·30	−0·21	8	16
	Spurn Head	40	31	38·4	32·3	35·5	− 2·7	0	46	7	0·41	?	*	*
3. ENGLAND, E.	Hillington ℳ	38	25	36·4	29·1	32·9	− 5·2	0	64	7	0·51	−0·05	5	10
	Yarmouth	38	26	36·4	29·1	32·9	− 6·2	0	64	7	0·49	−0·13	*	*
	Geldeston	43	24	38·1	28·5	33·5	− 5·7	0	60	6	0·39	−0·11	13	25
	Cambridge	41	25	37·4	28·3	33·0	− 5·6	0	63	4	0·08	−0·35	7	13
	Rothamsted	40	27	37·0	28·9	33·1	− 5·0	0	62	5	0·07	−0·52	*	*
	Ingatestone	40	27	35·9	30·1	33·1	− 5·8	0	62	2	0·03	−0·39	10‡	19‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	42	27	38·7	30·3	34·7	− 4·5	0	51	2	0·06	−0·46	15‡	29‡
	Loughborough	42	19	38·6	29·0	34·0	− 4·1	0	56	3	0·06	−0·45	*	*
	Leicester	41	23	38·0	28·5	33·4	− 4·3	0	60	3	0·11	−0·40	5	10
	Cheadle ℳ	39	22	35·6	26·3	31·1	− 6·9	0	76	4	0·11	−0·61	*	*
	Churchstoke ℳ	42	24	38·0	27·2	32·8	− 5·7	0	64	2	0·05	−0·65	6	12
	Hereford ℳ	43	24	39·1	29·8	34·6	− 3·9	0	52	2	0·03	−0·52	*	*
	Cirencester	?43	21	?39·3	29·6	?34·6	−?4·3	0	?52	1	0·02	−0·67	8	15
	Oxford	40	26	37·1	29·7	33·6	− 5·6	0	59	1	0·02	−0·48	7	13
5. ENGLAND, S.	London	41	29	37·4	30·4	34·0	− 5·3	0	56	2	0·04	−0·45	2‡	4‡
	Strathfield Turgiss ℳ	40	26	37·3	29·0	33·3	− 5·9	0	61	1	0·10	−0·42	*	*
	Dungeness	42	26	37·7	27·6	32·9	− 8·4	0	64	1	0·22	−0·48	*	*
	Hastings (St. Leonard's)	41	27	37·5	30·2	34·0	− 7·1	0	56	4	0·30	−0·38	12	22
	Southampton	42	26	38·9	29·2	34·2	− 5·0	0	55	1	0·01	−0·71	10	19
	Hurst Castle	45	25	40·6	28·3	34·7	− 6·8	0	51	0	—	−0·64	*	*
	Stowell ℳ	43	23	37·8	28·7	33·4	− 6·6	0	60	3	0·03	?	5‡	9‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	46	23	40·7	28·1	34·7	− 5·4	0	51	3	0·35†	−1·79	*	*
	Glasgow	43	20	40·5	28·2	34·6	− 9·2	0	52	1	0·25	−0·73	2	4
	Ardrossan	45	23	42·3	29·7	36·3	− 2·8	1	45	3	0·06	−0·87	*	*
	Glenlee	43	16	38·6	26·9	33·0	− 5·4	0	63	2	0·08	?	*	*
	Douglas (Isle of Man)	45	24	41·8	31·1	36·7	− 4·4	0	37	3	0·17	−0·86	15	30
7. ENGLAND, N.W.	Newton Reigny (Penrith)	41	19	36·0	26·2	31·3	− 6·2	0	75	3	0·24	−0·56	8	16
	Barrow-in-Furness	44	27	40·4	32·7	36·7	− 4·1	0	37	4	0·18	−0·67	*	*
	Stonyhurst	42	24	37·4	29·1	33·4	− 5·4	0	60	2	0·07	−1·01	18	36
	Blackpool ℳ	42	?	38·7	?	?	?	?	?	2	0·17	−0·57	18	36
	Manchester	41	26	37·2	29·2	33·4	− 5·9	0	60	4	0·10	−0·73	*	*
	Liverpool Obsy (Bidston)	44	31	39·6	33·0	36·4	− 4·2	0	39	4	0·15	−0·45	*	*
	Llandudno ℳ													
	Holyhead	46	36	43·6	37·6	40·7	− 2·9	4	17	4	0·21	−0·64	*	*
8. ENGLAND, S.W.	Llandovery	43	21	38·0	24·4	31·5	− 9·0	0	74	4	0·08	−1·15	*	*
	Pembroke	46	32	42·7	36·4	39·7	− 3·4	2	21	4	0·40	−0·51	12	23
	Arlington (N. Devon)	43	25	?40·3	30·3	?35·5	−?5·0	0	?46	5	0·17	−1·16	*	*
	Cullompton ℳ	45	23	40·1	28·5	34·5	− 6·7	0	53	2	0·03	−0·77	14	26
	Falmouth	46	30	42·4	33·9	38·3	− 5·8	1	30	3	0·21	−1·02	22	40
	Plymouth	45	27	40·8	31·3	36·2	− 6·5	0	41	2	0·03	−0·82	18	33
	Prawle Point	49	28	42·1	31·4	37·0	− 5·6	0	39	0	—	?	*	*
9. IRELAND, N.	Malin Head	46	32	43·7	35·3	39·7	− 0·8	5	26	6	0·28	?	*	*
	Londonderry												*	*
	Mullaghmore	47	31	43·9	36·9	40·5	− 1·6	5	20	6	0·18	−0·74	*	*
	Belmullet	47	35	44·1	38·3	41·3	− 2·8	6	15	7	0·33	?	*	*
	Markree Castle	45	25	42·6	34·0	38·5	− 2·7	2	30	6	0·28	−0·51	8	16
	Brookeborough	47	23	41·2	31·5	36·5	− 3·5	0	39	3	0·25	?	*	*
	Armagh	45	24	41·4	30·8	36·3	− 3·9	0	40	2	0·04	−0·60	12	24
	Donaghadee	45	29	42·6	34·6	38·8	− 2·3	2	28	5	0·22	−0·43	*	*
	Edgeworthstown	44	23	39·9	30·1	35·2	− 4·5	0	48	2	0·19	−0·51	*	*
10. IRELAND, S.	Dublin	44	25	40·4	33·2	36·9	− 4·2	0	36	3	0·09	−0·45	18	35
	Parsonstown	44	21	40·3	29·9	35·3	− 4·8	0	47	2	0·08	−0·60	14	27
	Kilkenny	44	21	40·1	29·3	34·9	− 5·1	0	50	1	0·12	−0·61	*	*
	Waterford	44	24	41·4	30·7	36·3	− 5·8	0	40	2	0·11	−0·86	*	*
	Roche's Point	46	30	43·3	34·3	39·0	− 4·1	4	29	1	0·02	−1·08	*	*
	Valencia	49	30	46·1	34·6	40·6	− 4·9	11	31	3	0·11	−1·24	19	36
	Killarney	46	21	42·6	30·9	37·0	− 6·2	2	41	2	0·11	?	*	*
	Foynes	45	27	42·1	32·6	37·5	− 4·2	0	34	3	0·09	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	48	37	45·4	39·9	42·8	− 4·2	14	6	5	0·31	−0·61	*	*
	Jersey (Noirmont)	48	35	43·7	36·4	40·2	− 3·1	5	22	5	0·62	−0·19	12	21

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Glencarron, Fort Augustus, and Laudale being so much greater than that at our other stations in "Scotland, N." and "Scotland, W.", and there being no averages available for the first and second of these stations, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in those districts.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 116, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S. SECRETARY.
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VOL. IV. No. 52.] *Second Series.* WEEK ENDING MONDAY, 2ND JANUARY, 1888. [*Price 4d.* [*Annual subscription, post paid, £1 1s. 2d.*

I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Summary.—The distribution of the Districts, and the Stations from which reports are received, are shown on the last page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 20 years observations (1861–80). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the eight years, 1878–85. RAINFALL.—*The Mean amounts* are those for the corresponding periods in the twenty years 1866–85, but the *Mean numbers of Rainy Days* are those for the eight years 1878–85, only. BRIGHT SUNSHINE.—*The Mean* values employed are those for the corresponding periods in the five years 1881–85.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. of this Series.

Temperature of the Air.

	DISTRICTS. (See p. 208.)	Observed during the Week. Highest.	Lowest.	Averages of Daily Maxima.	Daily Minima.	Daily Mean.	Above or below the Mean for the Week.	Accumulated. For the Week. Above 42°	Difference from Mean.	Below 42°	Difference from Mean.	From January 4, 1887. Above 42°.	Difference from Mean.	Below 42°.	Difference from Mean.
		°	°	°	°	°	°	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.	Day-deg.
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	42	23	38·8	30·2	34·7	4 below.	0	− 5	51	+16	1910	+ 20	938	+153
	1. SCOTLAND, EAST	47	13	37·7	27·5	32·8	4 below.	0	− 7	64	+21	2443	+ 44	992	+120
	2. ENGLAND, N.E.	42	23	37·9	30·5	34·3	4 below.	0	− 7	54	+15	2475	−108	899	+144
	3. ENGLAND, EAST	45	15	36·6	27·1	32·0	6 below.	0	− 8	70	+28	2790	−176	1081	+294
	4. MIDLAND COUNTIES	44	22	36·7	26·9	32·0	6 below.	0	− 9	70	+28	2787	−144	1095	+284
	5. ENGLAND, SOUTH	47	19	37·7	26·7	32·5	8 below.	0	− 6	67	+34	3033	−218	836	+247
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	47	22	39·1	30·7	35·1	4 below.	0	− 9	48	+15	2439	−110	764	+132
	7. ENGLAND, N.W.	48	13	38·5	29·7	34·3	6 below.	0	− 9	54	+22	2597	−123	769	+180
	8. ENGLAND, S.W.	48	15	40·3	28·6	34·7	7 below.	0	−13	51	+31	3006	−184	622	+272
	9. IRELAND, NORTH	45	21	39·0	31·7	35·5	6 below.	0	−12	46	+16	2732	+ 73	616	+ 51
	10. IRELAND, SOUTH	49	18	39·5	31·1	35·5	7 below.	0	−19	46	+23	3126	+ 62	566	+156
	— CHANNEL ISLANDS	47	27	42·6	34·1	38·5	6 below.	2	−22	29	+20	3393	−154	224	+ 98

Rainfall. Bright Sunshine.

	DISTRICTS. (See p. 208.)	Rainfall. For the Week. Number of Rainy Days.	Total Fall.	More or less than the Mean for the Week.	From January 4, 1887. Number of Rainy Days.	Difference from Mean.	Total Fall.	Difference from Mean.	Bright Sunshine. For the Week. Hours recorded.	Percentage of possible Duration.	From January 4, 1887. Hours recorded.	Difference from Mean.	Percentage of possible Duration.	Difference from Mean.
			10ths of In.				Ins.	Ins.						
Principal Wheat-producing Districts.	0. SCOTLAND, NORTH	6	4	5 less.	241	+ 8	41·5	− 4·4	6	13	990	−226	22	− 5
	1. SCOTLAND, EAST	4	2	5 less.	183	−11	24·8	− 8·3	6	13	1374	− 24	31	− 1
	2. ENGLAND, N.E.	6	4	2 less.	176	−16	20·5	− 8·2	4	7	1377	+110	31	+ 2
	3. ENGLAND, EAST	5	2	3 less.	166	−29	19·1	− 7·5	13	25	1703	+161	39	+ 4
	4. MIDLAND COUNTIES	3	2	4 less.	148	−39	19·5	−10·3	6	11	1545	+163	35	+ 4
	5. ENGLAND, SOUTH	3	3	4 less.	150	−30	21·8	− 6·8	10	19	1681	+201	38	+ 4
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	2	3	7 less.	181	−26	39·0	− 8·7	3	5	1484	+154	34	+ 4
	7. ENGLAND, N.W.	3	3	5 less.	163	−32	25·4	−11·1	4	8	1520	+198	35	+ 5
	8. ENGLAND, S.W.	2	4	6 less.	159	−48	28·5	−16·4	11	20	1955	+357	44	+ 8
	9. IRELAND, NORTH	2	3	5 less.	188	−43	32·5 *	− 4·3	6	11	1370	+107	31	+ 3
	10. IRELAND, SOUTH	3	6	4 less.	159	−55	28·6	−11·6	8	15	1708	+260	39	+ 6
	— CHANNEL ISLANDS	3	3	6 less.	181	−44	25·9	− 9·2	22	39	2120	+233	48	+ 5

General Remarks.

Weather has been cloudy or dull generally, with occasional falls of cold rain, sleet, or snow. The snowfall which was experienced at the commencement of the period on the south-east coast of England was very heavy.

Temperature has continued below the mean in all districts, the deficit ranging from 4° in Scotland, and to as much as 6° to 8° over the greater part of England and Ireland. The highest of the maxima, which were recorded on December 27th in Scotland, and on January 2nd in England and Ireland, ranged from 42° in "Scotland, N." and "England, N.E." to 49° in "Ireland, S." The lowest of the minima, which were recorded on irregular dates, ranged from 13° in "Scotland, E." and "England, N.W.", and 15° in "England, E." and "England, S.W." to 23° in "Scotland, N." and "England, N.E.", and to 27° in the "Channel Islands". At the end of the period the thermometer was rising decidedly in all parts of the Kingdom.

Rainfall has been less than the mean in all districts.

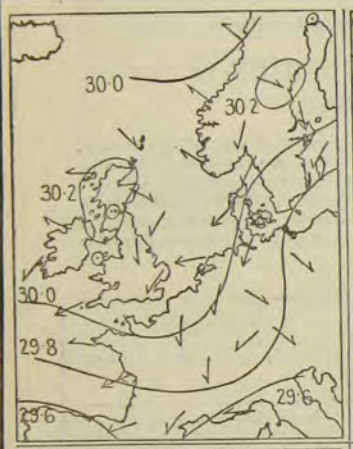
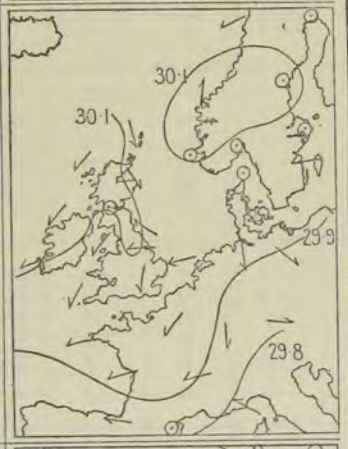
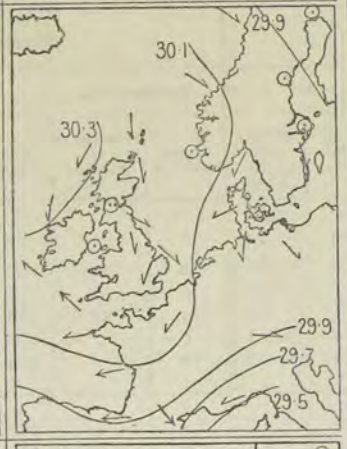
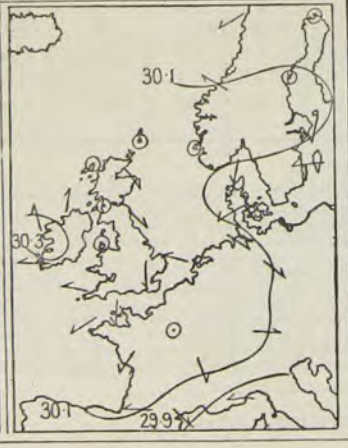
Bright sunshine has been very little prevalent, the percentage of the possible amount of duration ranging from 5 to 14 in most districts. In "England, E.", however, 25 and in the "Channel Islands" 39, % was recorded.

Depressions observed.—During nearly the whole of this period the distribution of barometric pressure over the United Kingdom was anticyclonic, and no depressions appeared in our immediate neighbourhood. Towards the end of the week, however, the mercury fell decidedly over our Islands and depressions began to advance over our western and northern coasts from the Atlantic. Light breezes between north and north-east were most general on our coasts during the prevalence of the anticyclonic conditions, but subsequently Southerly to South-Easterly and South-Westerly winds appeared, and blew freshly or strongly at many of our western stations.

* This value has been altered owing to the receipt of further information.

A 52922. 350.—1/88. Wt. 36. E. & S.

II.—SUMMARY OF WEATHER OVER WESTERN EUROPE.

Synoptic Charts. Pressure and Wind. 8 a.m.	Synoptic Charts. Pressure and Wind. 6 p.m.	Weather During the 24 hours succeeding 8 a.m. on the dates given.	Synoptic Charts. Temperature and Weather at 8 a.m.
		**Tuesday, December 27.** *Weather* fair over the greater part of our Islands and France, but cloudy elsewhere, with snow at Wisby and Munich, as well as at Helder and Dungeness. *Temperature* risen quickly in the north of Scandinavia, but fallen elsewhere—several degrees over Germany and France; readings over our Islands ranging at 8 a.m. from 39° at Mullaghmore, Belmullet, and Roche's Point to 21° at Cambridge. *Wind* light and variable in Scotland and North-Westerly in Germany, but North-Easterly or Easterly in most other localities; fresh in force over the Bay of Biscay and also on the eastern shores of the North Sea. North-Westerly breezes setting in over Scotland later. *Sea* moderate to smooth. *Barometer* rising in our Islands, but falling at the Continental stations. Small anticyclonic systems lying respectively over Sweden and Scotland, with a large depression over North Germany and another over the southern parts of the Iberian Peninsular. Anticyclone over the north of our Islands subsequently moving away to the westward.	
		**Wednesday, December 28.** *Weather* fine in Denmark, France, the west of our Islands and the north of Scandinavia, but cloudy elsewhere, with drizzling rain over the eastern and central parts of Great Britain. Slight rain falling later at some of the Irish stations. *Temperature* risen generally; readings over our Islands ranging at 8 a.m. from 44° at Donaghadee to 31° at Dungeness, but thermometer below 20° over Germany and the east of France. Frost occurring generally at night. *Wind* moderate North-Easterly on the eastern shores of the North Sea, and Northerly in our Islands, but Westerly in the east of France and South-Westerly in Germany. Subsequently veering to the North-Eastward over Ireland, England, and France. *Sea* rather rough off the south-east of England, but moderate to smooth elsewhere. *Barometer* rising in Scandinavia and Denmark as well as in the west of France, but falling elsewhere. Pressure highest to the westward of our Islands, with a large shallow depression over Germany and a deeper disturbance over the south of Spain. Rise taking place later at all but the French stations.	
		**Thursday, December 29.** *Weather* fair generally, but dull in the south-west, west, and north of our Islands, rainy at Sumburgh Head and Lisbon, and foggy in the Netherlands. Showers falling later at several of our northern and eastern stations. *Temperature* fallen at all but the Scandinavian and Danish stations; readings over our Islands ranging from 40° at Valencia and Scilly to 25° at Oxford. Thermometer below 10° over Germany, and considerably below zero over Northern Europe. Maxima below 40° in many parts of the United Kingdom. *Wind* light Northerly over the North Sea and adjacent coasts, but moderate Easterly in the south of our Islands, and strong from the same quarter in the west of France. Subsequently backing to North-West in the east of England. *Sea* moderate to smooth. *Barometer* rising generally. Anticyclone lying over the greater part of the United Kingdom, with a large shallow depression over the Baltic and North Germany, and deeper disturbances over Gulf of Genoa and the south of Portugal. Slight fall taking place in east of England later.	
		**Friday, December 30.** *Weather* fine in Scandinavia, the south-west of our Islands, and the south of France, but cloudy elsewhere, with fog or mist in the south-east of England. Rain or sleet falling later in the north and east. *Temperature* fallen a little in the north of Scotland and south of France, but risen elsewhere; readings over our Islands ranging at 8 a.m. from 41° at Holyhead to 32° at Parsonstown. Thermometer below 20° over Germany and the east of France. *Wind* light North-Westerly on our northern coasts, and North-Easterly in the south, but Easterly over the Bay of Biscay. *Sea* moderate to smooth. *Barometer* falling a little in the south of Scandinavia and the north and east of our Islands, but rising elsewhere. Anticyclone lying over our western coasts, with a shallow depression over the Baltic, and a deeper disturbance over the Gulf of Genoa.	

SUMMARY OF WEATHER OVER WESTERN EUROPE—*continued.*

Synoptic Charts.

PRESSURE AND WIND.

8 a.m. | **6 p.m.**

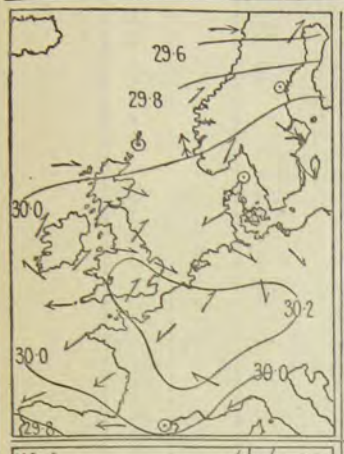
Weather

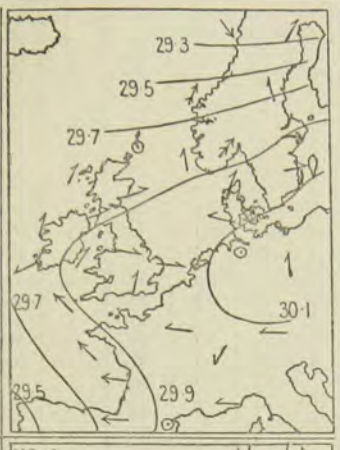
During the 24 hours succeeding 8 a.m. on the dates given.

Synoptic Charts.

TEMPERATURE AND WEATHER

at 8 a.m.





Saturday, December 31.

Weather fine in Scotland, Sweden, and the west and south of France, but dull elsewhere, with fog in the south-east of England and rain at some of our north-western stations.

Temperature fallen in most places, readings over our Islands ranging at 8 a.m. from 43° at Scilly to 29° at Parsonstown. Thermometer below 20° over Germany and the east of France, and lowest reading being 8° at Munich.

Wind light Westerly or South-Westerly on our northern coasts, but Easterly or North-Easterly in the south. Subsequently veering to South-East on our south-west coasts.

Sea moderate to smooth.

Barometer falling at all but the Danish and German stations. Anticyclone lying over South Germany, the east of France, and the south-east of England, with a large depression over the north of Scandinavia and another over Portugal. Fall subsequently becoming general and Portuguese depression advancing northwards towards our south-west coast.

Sunday, January 1, 1888.

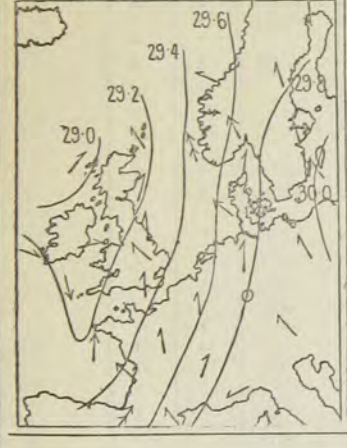
Weather fair over England, France, and the east of Scotland, but dull elsewhere. Rain setting in later on our extreme south-west coast.

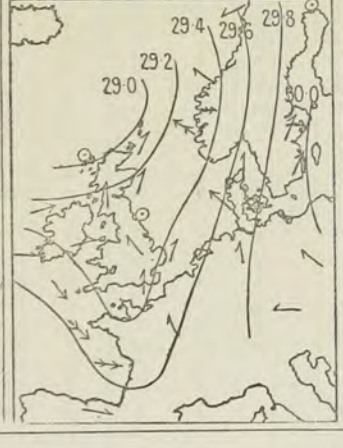
Temperature risen quickly in Sweden and slightly in the west and north of our Islands, but fallen elsewhere; readings over the United Kingdom ranging at 8 a.m. from 42° at Roche's Point and Scilly to 24° in London. Thermometer very low in Germany; reading at Munich 6° below zero, and at Wiesbaden only 1° above.

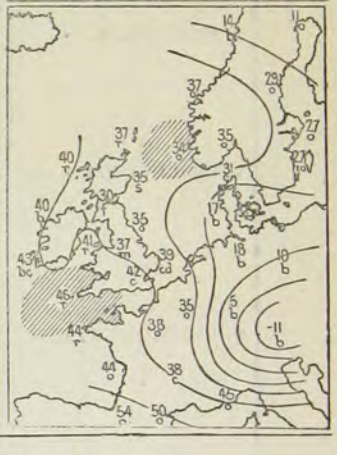
Wind South-East over England, Ireland, and the west of France; strong in force over the Bay of Biscay and the mouth of the Channel. Moderate South-Westerly breeze reported on our northern coast.

Sea rather rough at the mouth of the Channel, but moderate to smooth elsewhere.

Barometer falling briskly generally. Pressure highest over Germany, with a depression over the north of Sweden, and another to the south-westward of our Islands. Former disturbance subsequently moving eastwards, but latter advancing slowly northwards.







Monday, January 2.

Weather fine in Germany and Denmark, as well as at many of the Irish stations, but cloudy elsewhere, with snow in Scotland and rain in the west of England. Rain extending later to our eastern and south-eastern stations.

Temperature fallen a little in Ireland and Scotland, but risen several degrees elsewhere; readings over our Islands ranging at 8 a.m. from 46° at Scilly and Prawle Point to 30° at Ardrossan. Thermometer still very low over Germany; reading at Munich 11° below zero.

Wind moderate Westerly in Ireland, but fresh or strong from South or South-East elsewhere. Subsequently veering to South-West in Scotland.

Sea rough on our south-west coasts.

Barometer falling at all but the Swedish stations. Pressure highest over the Baltic, with a depression off the north-west of Scotland, and some secondary disturbances over our western coasts. Main system subsequently moving north-eastwards, but secondaries advancing eastwards across England.

Explanation of Charts.—In the two left-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

III.—DATA from which the SUMMARY on page 205 has been calculated.

Districts.	Names of Stations.	Temperature. (In Degrees Fahrenheit.) Highest observed.	Lowest observed.	Averages for the week. Of Highest each day.	Of Lowest each day.	For whole of the day.	Difference of Daily Average from Mean for the Week.	Accumulated Heat for the Week (in Day-degrees). Above 42° F.	Below 42° F.	Rainfall. Number of Rainy Days.	Rainfall in the Week.	Difference from the Mean for the Week.	Bright Sunshine. Number of Hours recorded.	Percentage of possible duration.
		°	°	°	°	°					Inches.	Inches.		
0. SCOTLAND, N.	Sumburgh Head	42	30	39·4	33·0	36·3	− 3·6	0	40	7	0·74	−0·17	*	*
	Stornoway	42	30	40·3	31·4	36·0	− 3·1	0	42	6	0·37	−0·84	6	13
	Wick	42	24	38·4	29·4	34·1	− 4·8	0	55	6	0·38	−0·21	*	*
	Lairg ℌ	41	23	37·0	26·9	32·2	− 5·2	0	69	3	0·11	−0·77	*	*
	Glencarron ℌ												*	*
	Fort Augustus ℌ													
1. SCOTLAND, E.	Nairn	41	26	38·3	30·4	34·5	− 3·3	0	53	6	0·21	−0·26	*	*
	Aberdeen	41	26	37·6	30·1	34·0	− 3·4	0	56	5	0·20	−0·45	9	20
	Braemar ℌ	40	13	35·4	19·8	27·9	− 6·3	0	99	3	0·13	−0·57	7‡	15‡
	Ochtertyre ℌ	47	20	40·7	25·1	33·2	− 4·0	0	62	3	0·21	−0·90	*	*
	Leith	41	28	38·7	30·1	34·6	− 3·3	0	52	4	0·27	−0·18	*	*
	Marchmont ℌ	39	25	35·3	29·7	32·6	− 3·2	0	66	3	0·33	−0·37	2	4
2. ENGLAND, N.E.	Alnwick Castle	40	29	37·4	32·3	35·0	− 3·0	0	49	6	0·51	−0·14	*	*
	Durham	41	28	36·9	30·3	33·7	− 4·1	0	58	6	0·28	−0·32	5	10
	Shields	41	29	38·9	32·0	35·6	− 3·3	0	45	6	0·47	−0·14	*	*
	Scarborough ℳ	40	26	38·4	30·5	34·6	− 3·4	0	52	6	0·62	+0·07	3*‡	6*‡
	York	42	23	37·4	27·0	32·4	− 5·4	0	67	5	0·30	−0·20	3	6
	Spurn Head	41	29	38·1	30·9	34·6	− 3·7	0	52	5	0·33	?	*	*
3. ENGLAND, E.	Hillington ℳ	41	15	35·9	26·8	31·5	− 6·1	0	74	5	0·24	−0·27	12	23
	Yarmouth	41	26	36·4	30·0	33·3	− 5·3	0	61	5	0·16	−0·42	*	*
	Geldeston	43	24	36·4	28·8	32·8	− 5·9	0	64	5	0·15	−0·30	11	21
	Cambridge	43	20	37·6	24·1	31·1	− 7·0	0	76	4	0·18	−0·22	11	21
	Rothamsted	45	22	37·1	26·2	31·9	− 6·0	0	71	3	0·21	−0·39	*	*
	Ingatestone	43	23	36·4	26·4	31·6	− 6·9	0	73	5	0·37	−0·04	18‡	34‡
4. MIDLAND COUNTIES	Bawtry (Hesley Hall)	42	24	36·7	27·7	32·4	− 6·6	0	67	4	0·25	−0·24	4‡	8‡
	Loughborough	44	25	38·0	27·6	33·0	− 4·9	0	63	4	0·18	−0·32	*	*
	Leicester	43	25	35·8	28·6	32·3	− 5·2	0	68	3	0·29	−0·20	2	4
	Cheadle ℳ	41	23	34·9	26·8	31·0	− 6·4	0	77	3	0·24	−0·45	*	*
	Churchstoke ℳ	44	22	35·9	26·3	31·3	− 6·9	0	75	1	0·08	−0·61	8	15
	Hereford ℳ	43	23	38·8	25·7	32·5	− 6·2	0	67	2	0·24	−0·34	*	*
	Cirencester	42	?	38·9	?	?	?	?	?	4	0·38	−0·34	15	28
	Oxford	43	22	37·1	25·3	31·4	− 7·7	0	74	3	0·24	−0·26	8	15
5. ENGLAND, S.	London	47	24	38·9	27·6	33·5	− 5·8	0	60	2	0·31	−0·19	6‡	11‡
	Strathfield Turgiss ℳ	44	20	37·4	24·3	31·1	− 7·7	0	76	3	0·23	−0·32	*	*
	Dungeness	46	19	37·1	25·7	31·6	− 9·3	0	73	1	0·25	−0·43	*	*
	Hastings (St. Leonard's)	45	22	37·5	27·5	32·7	− 7·6	0	65	5	0·34	−0·34	12	22
	Southampton	44	24	37·4	29·0	33·4	− 5·8	0	60	2	0·34	−0·41	10	19
	Hurst Castle	45	23	38·7	27·1	33·1	− 8·0	0	62	4	0·28	−0·40	*	*
	Stowell ℳ	44	22	37·2	26·0	31·8	− 8·2	0	71	3	0·27	?	12‡	22‡
6. SCOTLAND, W.	Laudale (Loch Sunart)	41	27	38·5	31·2	35·0	− 4·8	0	49	2	0·41†	−1·64	*	*
	Glasgow	41	25	38·0	27·5	33·0	− 5·7	0	63	3	0·25	−0·74	1	2
	Ardrossan	42	29	40·9	32·4	36·8	− 2·3	0	36	3	0·21	−0·76	*	*
	Glenlee	40	22	37·3	29·4	33·5	− 4·7	0	60	3	0·28	?	*	*
	Douglas (Isle of Man)	47	27	40·7	33·1	37·1	− 3·8	0	34	1	0·33	−0·73	4	8
7. ENGLAND, N.W.	Newton Reigny (Penrith)	41	13	36·9	27·1	32·1	− 5·4	0	69	5	0·27	−0·56	3	6
	Barrow-in-Furness	42	28	39·7	31·7	35·9	− 4·6	0	43	2	0·20	−0·64	*	*
	Stonyhurst	41	24	36·3	28·6	32·6	− 6·1	0	66	3	0·42	−0·60	5	10
	Blackpool ℳ													
	Manchester	42	25	36·3	29·4	33·0	− 6·2	0	63	2	0·40	−0·40	*	*
	Liverpool Obsy (Bidston)	43	28	38·9	29·4	34·3	− 6·0	0	54	3	0·27	−0·29	*	*
	Llandudno ℳ													
	Holyhead	48	29	43·0	32·0	37·7	− 5·5	3	37	5	0·38	−0·44	*	*
8. ENGLAND, S.W.	Llandovery	48	15	39·7	23·3	31·8	− 8·4	0	71	2	0·39	−0·84	*	*
	Pembroke	47	29	41·4	32·6	37·2	− 5·7	0	34	2	0·29	−0·61	11	21
	Arlington (N. Devon)	45	22	38·9	26·6	33·0	− 7·4	0	63	3	0·30	−0·90	*	*
	Cullompton ℳ	46	18	38·8	25·3	32·3	− 8·9	0	68	2	0·38	−0·42	9	17
	Falmouth	48	27	41·6	32·3	37·1	− 7·0	0	34	3	0·56	−0·69	10	18
	Plymouth	48	24	40·5	29·3	35·1	− 7·5	0	48	2	0·77	−0·10	12	23
	Prawle Point	47	25	41·0	30·7	36·1	− 6·4	0	41	2	0·21	?	*	*
9. IRELAND, N.	Malin Head	44	32	40·1	34·9	37·8	− 2·6	0	29	6	0·33	?	*	*
	Londonderry	43	30	38·4	31·0	34·9	− 6·1	0	50	1	0·20	−0·70	*	*
	Mullaghmore	44	30	41·0	33·3	37·3	− 4·8	0	33	3	0·16	−0·74	*	*
	Belmullet	45	29	41·7	35·1	38·5	− 5·6	0	25	3	0·14	?	*	*
	Markree Castle	43	21	38·7	28·2	33·7	− 7·9	0	58	3	0·18	−0·61	7	14
	Brookeborough	40	23	37·3	28·4	33·0	− 7·0	0	63	1	0·36	?	*	*
	Armagh	40	26	37·6	30·8	34·3	− 5·8	0	54	2	0·29	−0·36	4	8
	Donaghadee	44	30	40·3	35·0	37·8	− 3·4	0	29	1	0·48	−0·18	*	*
	Edgeworthstown	39	22	35·7	29·0	32·5	− 7·1	0	67	1	0·35	−0·34	*	*
10. IRELAND, S.	Dublin	43	29	39·4	33·3	36·5	− 4·7	0	39	2	0·41	−0·11	6	12
	Parsonstown	40	21	36·3	29·3	32·9	− 7·0	0	64	2	0·49	−0·20	7	13
	Kilkenny	42	23	37·3	30·6	34·1	− 5·8	0	55	2	0·63	−0·13	*	*
	Waterford	48	25	40·7	31·0	36·0	− 5·9	0	42	2	0·82	−0·18	*	*
	Roche's Point	48	30	42·3	33·3	38·0	− 4·9	1	32	2	0·68	−0·47	*	*
	Valencia	49	28	43·0	31·9	37·7	− 7·6	3	38	3	0·25	−1·16	10	19
	Killarney	44	18	38·3	27·9	33·3	− 9·8	0	61	3	0·63	?	*	*
	Foynes	44	23	38·6	31·5	35·2	− 6·5	0	48	4	0·64	?	*	*
CHANNEL ISLANDS	Scilly (St. Mary's)	47	33	44·1	36·7	40·6	− 6·0	6	21	3	0·36	−0·55	*	*
	Jersey (Noirmont)	46	27	41·1	31·4	36·4	− 5·6	0	39	2	0·27	−0·63	22	39

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An asterisk is inserted in all places for which the information is not usually received.

† The rainfall at Glencarron, Fort Augustus, and Laudale being so much greater than that at our other stations in "Scotland, N." and "Scotland, W.", and there being no averages available for the first and second of these stations, the weekly amounts are not used in calculating the "Difference from the mean for the Week" in those districts.

‡ The Bright Sunshine values entered to Bawtry are recorded at Worksop and those entered to Scarborough at Oswaldkirk. At Braemar, Ingatestone, and Stowell the Bright Sunshine values are obtained by Jordan's Photographic Recorder. At all other stations Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Meteorological Office, Victoria Street.

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QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1887.

VOL. IV. APPENDIX I.] *New Series.*

FIRST QUARTER—JANUARY TO MARCH.

[*Price 4d.*

TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE FIRST QUARTER OF THE TWENTY-TWO YEARS, 1866 TO 1887.

RAINFALL (in Inches).

YEARS.	Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
	0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the Grazing, &c. Districts.					
	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.
1866	—	14·8	—	11·3	—	5·8	—	7·4	—	7·1	—	11·4	—	8·6	—	15·4	—	13·4	—	16·9	—	13·7	—	12·0	—	14·3	—	—	—	11·5
1867	—	10·7	—	9·2	—	5·4	—	5·7	—	8·1	—	8·8	—	7·5	—	9·9	—	11·1	—	15·2	—	11·8	—	10·7	—	11·7	—	—	—	9·6
1868	—	19·1	—	11·7	—	4·9	—	5·4	—	6·7	—	7·5	—	7·2	—	17·6	—	13·3	—	11·9	—	13·0	—	10·5	—	13·3	—	—	—	10·3
1869	—	11·8	—	8·9	—	6·2	—	6·2	—	7·7	—	9·0	—	7·6	—	11·4	—	12·2	—	14·0	—	12·1	—	12·1	—	12·4	—	—	—	10·0
1870	—	6·4	—	6·7	—	4·8	—	3·9	—	5·1	—	6·0	—	5·3	—	8·8	—	9·0	—	10·7	—	8·6	—	9·7	—	9·4	—	—	—	7·4
1871	—	9·4	—	6·9	—	3·8	—	3·9	—	4·8	—	6·1	—	5·1	—	11·7	—	8·7	—	10·0	—	10·7	—	9·4	—	10·1	—	—	—	7·6
1872	—	8·2	—	11·2	—	7·8	—	6·1	—	9·8	—	10·1	—	9·0	—	15·2	—	14·0	—	19·5	—	12·7	—	13·1	—	14·9	—	—	—	12·0
1873	—	7·9	—	7·2	—	5·3	—	5·4	—	7·1	—	8·4	—	6·7	—	10·0	—	9·6	—	14·1	—	8·8	—	11·9	—	10·9	—	—	—	8·8
1874	—	11·5	—	6·5	—	3·5	—	3·1	—	5·7	—	4·4	—	4·6	—	8·6	—	11·0	—	12·5	—	8·4	—	7·7	—	9·6	—	—	—	7·1
1875	—	8·4	—	7·0	—	3·9	—	3·7	—	5·8	—	6·7	—	5·4	—	9·8	—	8·7	—	12·6	—	7·1	—	10·2	—	9·7	—	—	—	7·6
Means for 10 years, 1866–75	—	10·8	—	8·7	—	5·1	—	5·1	—	6·8	—	7·8	—	6·7	—	11·8	—	11·1	—	13·7	—	10·7	—	10·7	—	11·6	—	—	—	9·2
1876	—	13·4	—	9·5	—	6·3	—	6·7	—	8·2	—	7·5	—	7·6	—	12·1	—	12·0	—	10·9	—	10·0	—	10·0	—	11·0	—	—	—	9·3
1877	—	11·9	—	9·8	—	7·1	—	7·6	—	8·3	—	10·7	—	8·7	—	14·2	—	15·4	—	14·2	—	13·4	—	11·4	—	13·7	—	—	—	11·2
1878	67	9·3	40	4·3	45	4·8	52	4·5	43	3·9	42	5·1	44	4·5	53	11·0	51	7·2	41	6·1	60	8·3	52	7·8	51	8·1	56	6·1	48	6·3
1879	54	5·5	46	6·9	55	5·1	54	6·2	48	6·1	49	8·2	50	6·5	47	8·5	43	6·7	54	11·2	60	6·7	55	11·2	52	8·9	63	11·7	51	7·7
1880	49	7·4	41	5·5	34	3·3	38	3·4	35	4·3	38	4·7	37	4·2	49	10·3	40	6·2	47	6·9	49	7·5	50	9·8	47	8·1	50	6·0	42	6·2
1881	60	9·2	46	7·4	51	6·3	47	5·8	42	6·4	39	6·7	45	6·5	46	9·5	42	8·6	45	9·7	51	7·7	44	8·7	46	8·8	51	9·0	46	7·7
1882	72	10·3	48	5·2	32	3·1	32	4·3	35	5·6	34	3·6	36	4·4	62	11·9	49	7·8	49	7·1	63	8·3	59	9·7	57	9·0	48	5·8	47	6·7
1883	65	8·9	52	6·5	53	5·8	51	6·4	49	7·4	49	7·5	51	6·7	56	12·2	51	8·5	55	10·4	63	10·2	57	13·8	57	11·0	63	8·8	54	8·9
1884	66	12·1	52	6·4	44	6·2	42	3·9	47	6·7	48	6·7	46	6·0	68	17·1	57	11·5	62	12·2	70	12·2	72	15·4	66	13·7	59	9·2	56	9·9
1885	63	9·1	46	5·4	45	4·4	48	5·3	50	6·1	45	7·3	47	5·7	57	11·9	53	7·7	54	9·1	57	8·4	58	11·8	56	9·8	62	8·2	52	7·8
Means for 10 years, 1876–85	—	9·7	—	6·7	—	5·2	—	5·4	—	6·3	—	6·8	—	6·1	—	11·9	—	9·2	—	9·8	—	9·3	—	11·0	—	10·2	—	—	—	8·2
1886	70	9·5	55	5·9	56	6·3	54	4·9	49	6·5	48	6·3	53	6·0	57	11·2	54	9·0	57	10·8	58	10·0	55	11·2	56	10·4	68	8·9	55	8·2
1887	60	12·1	43	5·3	38	3·8	33	3·8	35	4·1	34	4·1	36	4·2	47	9·7	38	5·9	38	5·5	47	7·3	40	7·6	41	7·2	42	4·3	39	5·7
Means for 22 years, 1866–87	—	10·3	—	7·5	—	5·2	—	5·2	—	6·4	—	7·1	—	6·3	—	11·7	—	9·9	—	11·4	—	9·9	—	10·7	—	10·7	—	—	—	8·5

MEAN TEMPERATURE (in Degrees Fahrenheit).

YEARS.	0. Scotland, N.	1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for the Grazing, &c. Districts.	Channel Islands.	Means for the British Islands generally.
1866	38°3	38°8	39°1	40°9	40°4	41°9	40°2	40°0	40°6	43°4	39°9	40°3	40°8	—	40°5
1867	36°9	37·2	36°8	38°6	38°2	39·2	38°0	37·7	38°6	41·4	38°1	39°9	39·1	—	38°6
1868	40°7	41·7	41·1	41·4	41·9	42·0	41·6	42·3	42·4	44·4	42·1	44·3	43·1	—	42·4
1869	40°0	40·3	40·6	41·1	41·2	42·0	41·0	42·0	42·1	45·1	42·9	44·6	43·3	—	42·2
1870	37·9	37·4	37·1	37·4	38·0	38·2	37·6	38·6	38·7	41·3	39·8	41·6	40·0	—	38·8
1871	40·0	39·7	38·8	39·2	40·1	40·3	39·6	40·0	40·0	43·3	41·6	43·4	41·7	—	40·7
1872	40·9	40·9	41·3	42·3	42·9	43·7	42·2	42·9	43·3	46·1	42·4	44·5	43·8	—	43·0
1873	39·0	38·4	38·5	38·9	39·1	39·9	39·0	39·2	39·7	42·6	39·8	41·0	40·5	—	39·8
1874	41·7	41·8	41·3	40·4	41·0	42·0	41·3	42·3	41·8	45·0	42·8	45·2	43·4	—	42·4
1875	39·5	39·0	38·8	38·6	39·2	40·2	39·2	39·8	40·2	42·9	41·6	44·6	41·8	—	40·5
Means for 10 years, 1866–75	39·5	39·5	39·3	39·9	40·2	40·9	40·0	40·5	40·7	43·6	40·1	42·9	41·8	—	40·9
1876	38·7	38·3	39·2	39·0	38·9	40·0	39·1	39·5	39·8	42·4	40·1	43·3	41·0	—	40·1
1877	38·4	38·8	40·4	41·7	41·8	43·1	41·2	40·5	41·8	44·9	41·4	45·2	42·8	—	42·0
1878	39·4	40·1	40·8	40·6	41·8	41·7	41·0	41·9	42·2	44·2	42·5	45·1	43·2	43·8	42·1
1879	35°8	34·2	35·9	36·5	36·4	37·8	36·2	36·5	36·8	40·8	38·0	40·5	38·5	42·4	37·4
1880	40·6	39·8	39·5	39·2	39·9	40·5	39·8	41·3	40·6	43·5	42·2	44·1	42·3	42·4	41·1
1881	34·4	33·5	34·3	36·1	35·8	38·2	35·6	35·3	36·6	39·9	37·5	39·8	37·8	44·5	36·7
1882	41·8	42·9	42·8	42·1	42·6	43·5	42·8	43·7	43·5	44·9	44·8	46·0	44·6	44·7	43·7
1883	38·7	38·8	38·8	39·0	39·2	40·8	39·3	40·2	40·1	42·2	40·9	42·5	41·2	44·8	40·3
1884	40·7	41·2	41·9	42·4	42·6	43·8	42·4	42·4	42·4	44·5	42·7	44·8	43·4	46·5	42·9
1885	38·4	38·3	39·2	39·2	39·3	40·7	39·3	39·6	39·7	41·9	40·6	42·2	40·8	43·9	40·1
Means for 10 years, 1876–85	38·7	38·6	39·3	39·6	39·8	41·0	39·7	40·1	40·4	42·9	41·1	43·4	41·6	—	40·6
1886	36·5	36·1	36·2	35·6	36·0	37·2	36·2	37·2	36·9	38·4	38·6	40·0	38·2	42·0	37·2
1887	39·4	39·2	38·7	37·5	37·8	38·7	38·4	39·8	39·0	40·4	41·3	42·3	40·6	42·7	39·5
Means for 22 years, 1866–87	39·0	38·9	39·1	39·4	39·7	40·7	39·6	40·1	40·3	42·9	41·0	43·0	41·5	—	40·6

TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE TWENTY-TWO YEARS, 1866 TO 1887.

		Wheat Districts.	Grazing, &c. Districts.	Generally.
Rainfall	Driest	Ins. 4·2 in 1880 and 1887	Ins. 7·2 in 1887	Ins. 5·7 in 1887
	Wettest	9·0 in 1872	14·9 in 1872	12·0 in 1872
Temperature	Coldest	35°6 in 1881	37°8 in 1881	36°7 in 1881
	Warmest	42·8 in 1882	44·6 in 1882	43·7 in 1882

W† 36. E. & S.

TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE FIRST QUARTER, 1887.

YEAR AND MONTHS.	0. Scotland, N.		Principal Wheat-producing Districts.										Means for Wheat producing Districts.		Principal Grazing, &c. Districts.										Means for the &c. Grazing Districts.		Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.				6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.							
	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.
RAINFALL.—NUMBER OF DAYS WITH RAIN.																														
January -	20	20	15	15	14	14	12	12	13	13	12	12	13	13	18	18	15	15	17	17	15	15	16	16	16	16	16	16	15	15
February -	19	39	12	27	8	22	8	20	8	21	9	21	9	22	13	31	10	25	9	26	14	29	11	27	11	27	11	27	10	25
March - -	21	60	16	43	16	38	13	33	14	35	13	34	14	36	16	47	13	38	12	38	18	47	13	40	14	41	15	42	14	39
RAINFALL.—AMOUNTS IN INCHES.																														
January -	5·36	5·36	2·14	2·14	1·48	1·48	1·39	1·39	1·91	1·91	1·73	1·73	1·73	1·73	4·21	4·21	2·49	2·49	2·85	2·85	2·62	2·62	3·92	3·92	3·22	3·22	2·35	2·35	2·48	2·48
February -	4·29	9·65	1·37	3·51	0·51	1·99	0·67	2·06	0·54	2·45	0·71	2·44	0·76	2·49	3·56	7·77	1·18	3·67	0·82	3·67	2·75	5·37	1·78	5·70	2·02	5·24	0·75	3·10	1·39	3·87
March - -	2·46	12·11	1·82	5·33	1·80	3·79	1·69	3·75	1·63	4·08	1·70	4·14	1·73	4·22	1·97	9·74	2·22	5·89	1·86	5·53	1·93	7·30	1·87	7·57	1·97	7·21	1·15	4·25	1·85	5·72
ACCUMULATED HEAT.—DAY DEGREES ABOVE 42° F.																														
January -	38	38	45	45	34	34	17	17	37	37	33	33	33	33	49	49	35	35	52	52	63	63	84	84	57	57	62	62	45	45
February -	43	81	58	103	58	92	43	60	62	99	60	93	56	89	41	90	47	82	64	116	75	138	101	185	66	123	66	128	61	106
March - -	54	135	88	191	71	163	79	139	77	176	86	179	80	169	72	162	54	136	90	206	99	237	114	299	86	209	87	215	83	189
ACCUMULATED HEAT.—DAY DEGREES BELOW 42° F.																														
January -	134	134	164	164	173	173	215	215	205	205	160	160	183	183	129	129	149	149	90	90	109	109	81	81	112	112	47	47	148	148
February -	91	225	117	281	126	299	102	377	151	356	122	282	136	319	83	212	117	266	101	191	79	188	64	145	89	201	52	99	113	261
March - -	171	396	172	453	167	466	197	574	191	547	171	453	180	499	135	347	149	415	151	342	104	292	111	256	130	331	64	163	155	416
BRIGHT SUNSHINE.—NUMBER OF HOURS.																														
January -	15	15	45	45	38	38	43	43	41	41	36	36	41	41	33	33	36	36	42	42	35	35	53	53	40	40	92	92	41	41
February	60	75	70	115	92	130	117	160	100	141	86	122	93	134	72	105	90	126	104	146	90	125	98	151	91	131	109	201	92	133
March - -	112	187	165	280	145	275	150	310	106	247	139	261	141	275	126	231	131	257	187	333	122	247	158	309	145	276	206	407	143	276
BRIGHT SUNSHINE.—PERCENTAGE OF POSSIBLE DURATION.																														
January -	8	12	21	14	17	14	18	12	18	16	16	16	18	14	15	16	17	12	18	21	16	20	23	26	18	19	38	40	18	17
February -	24	15	28	27	35	24	43	28	36	25	31	21	35	25	27	19	33	23	37	25	34	23	36	28	33	24	39	38	34	24
March - -	27	20	40	30	35	29	36	33	26	27	34	26	34	29	30	23	31	27	44	33	29	26	38	31	34	28	49	41	34	29

1887.

EXPLANATION OF TABLES.

TABLES I. and IA. are merely in continuation of the Tables given in the Quarterly Summaries of the Weekly Weather Reports, 1884-86. The whole of the values for 1878-87, however, have been corrected by information received since they were first published.

TABLE II. In this Table the monthly values for *January* are those for the first four weeks in the year; those for *February* are for the fifth to the eighth weeks; those for *March* are for the ninth to the thirteenth weeks.

The figures given in the columns headed "Since Jan. 4" are the values for the whole period elapsed since the beginning of the first week of the year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for the Grazing, &c. Districts" the values for the "Channel Islands," are not included.

The Means for the "British Islands Generally" are those for the Wheat Districts and Grazing Districts combined.

(OFFICIAL COPY.)

QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1887.

VOL. IV. APPENDIX I.] *New Series.* SECOND QUARTER—APRIL TO JUNE. [*Price 4d.*

TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE SECOND QUARTER OF THE TWENTY-TWO YEARS, 1866 TO 1887.

	YEARS.	0. Scotland, N.		Principal Wheat-producing Districts. 1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		Principal Grazing, &c. Districts. 6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the &c. Grazing, Districts.		Channel Islands.		Means for the British Islands generally.	
		Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.
RAINFALL (in Inches).	1866	—	6·2	—	4·8	—	5·2	—	6·0	—	6·3	—	6·7	—	5·8	—	5·1	—	6·3	—	6·5	—	6·7	—	8·2	—	6·6	—	—	—	—	—	6·2
	1867	—	10·6	—	8·0	—	6·8	—	6·2	—	6·7	—	5·8	—	6·7	—	10·5	—	8·3	—	10·0	—	10·0	—	9·3	—	9·6	—	—	—	—	—	8·2
	1868	—	10·9	—	6·1	—	3·7	—	3·2	—	3·3	—	4·1	—	4·1	—	7·7	—	4·4	—	5·9	—	6·6	—	6·3	—	6·2	—	—	—	—	—	5·2
	1869	—	6·7	—	5·3	—	7·5	—	5·0	—	7·5	—	6·6	—	6·4	—	4·8	—	7·6	—	8·2	—	7·7	—	7·8	—	7·2	—	—	—	—	—	6·8
	1870	—	9·5	—	4·1	—	4·3	—	2·3	—	2·5	—	2·4	—	3·1	—	7·4	—	5·7	—	4·2	—	6·4	—	4·6	—	5·7	—	—	—	—	—	4·4
	1871	—	4·3	—	6·1	—	7·5	—	7·5	—	7·5	—	7·7	—	7·3	—	8·3	—	7·7	—	8·4	—	7·5	—	7·7	—	7·9	—	—	—	—	—	7·6
	1872	—	11·4	—	10·4	—	7·4	—	6·6	—	8·6	—	8·5	—	8·3	—	11·2	—	12·0	—	10·9	—	9·8	—	7·6	—	10·3	—	—	—	—	—	9·3
	1873	—	7·9	—	5·9	—	4·8	—	4·7	—	5·6	—	4·3	—	5·1	—	5·1	—	4·7	—	5·9	—	6·3	—	5·1	—	5·4	—	—	—	—	—	5·3
	1874	—	10·0	—	4·5	—	3·4	—	3·9	—	3·9	—	5·3	—	4·2	—	5·5	—	5·0	—	4·5	—	6·8	—	4·2	—	5·2	—	—	—	—	—	4·7
	1875	—	8·7	—	5·5	—	4·2	—	4·9	—	6·4	—	6·0	—	5·4	—	6·5	—	7·6	—	9·8	—	7·0	—	6·5	—	7·5	—	—	—	—	—	6·4
	Means for 10 years, 1866-75	—	8·6	—	6·1	—	5·5	—	5·0	—	5·8	—	5·7	—	5·6	—	7·2	—	6·9	—	7·4	—	7·5	—	6·7	—	7·1	—	—	—	—	—	6·4
	1876	—	8·4	—	6·1	—	6·2	—	4·9	—	5·5	—	4·9	—	5·5	—	6·4	—	7·0	—	5·5	—	5·6	—	5·0	—	5·9	—	—	—	—	—	5·7
	1877	—	10·1	—	8·8	—	6·7	—	5·6	—	6·8	—	6·2	—	6·8	—	9·5	—	8·4	—	11·2	—	8·5	—	10·9	—	9·7	—	—	—	—	—	8·3
	1878	38	3·7	38	6·2	44	7·6	54	8·2	56	9·2	51	8·4	48	7·9	42	8·7	48	8·3	58	11·6	49	9·1	62	13·9	52	10·3	61	10·6	51	9·1
	1879	46	4·5	56	8·3	57	8·3	68	10·1	64	10·0	58	10·3	61	9·4	51	9·9	55	8·4	61	11·3	58	10·0	63	11·6	57	10·2	64	8·9	59	9·8
	1880	46	4·9	43	4·9	44	6·6	50	7·2	48	7·2	43	5·5	45	6·1	46	8·0	40	6·7	38	5·4	53	8·5	46	7·8	45	7·3	49	4·6	45	6·7
	1881	49	7·0	45	5·6	41	4·5	35	4·3	37	4·3	33	4·2	38	4·6	49	9·3	44	8·6	42	6·1	55	8·5	48	8·3	47	8·2	41	4·6	43	6·4
	1882	51	7·4	51	7·4	47	9·2	48	8·0	49	9·9	47	7·9	48	8·5	51	10·5	51	10·6	55	10·2	60	9·4	56	10·3	55	10·2	49	6·6	52	9·3
	1883	48	5·7	40	3·8	39	6·0	36	6·7	39	7·2	36	5·1	38	5·8	45	7·8	38	5·9	42	6·1	52	6·2	44	7·6	44	6·7	42	5·9	41	6·2
	1884	48	6·4	39	3·6	39	3·2	33	3·8	32	4·2	31	4·7	35	3·9	40	5·4	32	3·8	32	4·9	42	5·8	38	4·6	37	4·9	42	4·9	37	4·4
	1885	61	6·8	46	5·5	48	6·1	43	6·5	48	6·8	43	6·0	46	6·2	48	7·3	45	6·0	50	8·7	50	6·1	46	7·8	48	7·2	50	6·0	47	6·7
	Means for 10 years, 1876-85	—	6·5	—	6·0	—	6·5	—	6·4	—	7·1	—	6·3	—	6·5	—	8·3	—	7·4	—	8·1	—	7·8	—	8·8	—	8·1	—	—	—	—	—	7·3
	1886	59	6·7	46	6·4	46	6·1	43	5·2	50	9·4	45	6·4	46	6·7	48	8·8	49	9·4	46	7·3	50	7·9	50	8·2	49	8·3	50	6·2	48	7·5
	1887	45	6·2	32	3·7	33	3·0	35	3·6	31	4·0	31	3·8	32	3·6	34	5·8	27	3·8	29	3·5	29	4·5	26	3·3	29	4·2	35	3·8	31	3·9
	Means for 22 years, 1866-87	—	7·5	—	6·0	—	5·8	—	5·7	—	6·5	—	5·9	—	6·0	—	7·7	—	7·1	—	7·6	—	7·5	—	7·6	—	7·5	—	—	—	—	—	6·8
MEAN TEMPERATURE (in Degrees Fahrenheit).	1866		48°2		48°1		48°0		52°2		51°7		52°9		50°6		50°9		50°6		53°0		51°9		51°4		51°6		°		51°1
	1867		47·2		49·9		48·5		52·7		52·2		52·8		51·2		51·1		51·6		53·6		53·1		52·9		52·5		—		51·9
	1868		49·7		52·3		52·1		55·1		55·7		54·8		54·0		52·3		53·5		55·0		52·8		54·6		53·6		—		53·8
	1869		47·7		49·4		49·2		50·9		51·6		51·7		50·6		50·1		50·3		53·5		51·3		52·6		51·6		—		51·1
	1870		49·5		52·5		51·4		52·8		54·4		53·5		52·9		51·9		52·8		54·3		53·2		53·5		53·1		—		53·0
	1871		47·2		48·4		47·9		49·5		51·7		51·2		49·7		50·8		50·7		53·7		52·4		53·9		52·3		—		51·0
	1872		48·2		49·7		49·7		52·0		51·3		51·9		50·9		50·3		51·0		51·9		50·5		51·6		51·1		—		51·0
	1873		47·9		49·8		49·1		49·8		51·6		51·7		50·4		51·7		51·3		52·5		51·9		53·2		52·1		—		51·3
	1874		48·4		49·6		49·9		51·3		52·4		52·7		51·2		51·1		51·4		54·0		51·5		54·3		52·5		—		51·9
	1875		49·3		51·4		51·2		52·4		52·8		52·9		52·1		51·7		52·0		53·1		51·9		53·3		52·4		—		52·3
	Means for 10 years, 1866-75		48·3		50·1		49·7		51·9		52·5		52·6		51·4		51·2		51·5		53·5		52·1		53·1		52·3		—		51·8
	1876		48·2		49·7		49·8		51·1		51·3		51·3		50·6		50·3		50·5		52·1		49·8		52·2		51·0		—		50·8
	1877		46·6		47·5		48·4		50·8		51·1		51·8		49·9		49·1		49·5		52·3		49·3		52·2		50·5		—		50·2
	1878		48·8		50·6		51·7		53·8		54·3		54·8		53·0		52·5		53·5		53·5		52·6		53·7		53·2		54·9		53·1
	1879		45·0		46·8		47·5		48·8		49·0		49·8		48·4		48·4		48·6		50·0		48·4		50·0		49·1		50·7		48·8
	1880		47·6		49·9		49·5		51·1		50·9		52·0		50·7		50·5		50·5		52·3		50·4		52·1		51·2		52·2		51·0
	1881		46·8		50·1		50·6		52·6		52·9		53·5		51·9		50·8		51·8		52·5		51·8		52·8		51·9		53·4		51·9
	1882		47·5		49·4		50·4		52·4		52·2		53·8		51·6		50·7		51·8		52·4		51·2		52·2		51·7		53·9		51·7
	1883		47·3		50·1		50·2		52·1		52·2		52·9		51·5		50·0		51·0		51·7		50·5		51·5		50·9		52·6		51·2
	1884		46·8		49·4		50·0		51·2		51·4		52·4		50·9		50·1		50·6		51·5		50·6		51·8		50·9		52·6		50·9
	1885		45·8		48·6		49·0		50·5		50·2		51·8		50·0		48·3		49·0		50·0		48·7		49·6		49·1		51·1		49·6
	Means for 10 years, 1876-85		47·0		49·2		49·7		51·4		51·6		52·4		50·9		50·1		50·7		51·8		50·3		51·8		50·9		—		50·9
	1886		45·6		47·8		47·9		50·5		50·5		52·0		49·7		48·1		49·4		51·2		48·9		50·8		49·7		52·1		49·7
	1887		48·4		50·5		50·3		51·4		52·0		52·4		51·3		51·0		51·2		52·6		52·2		53·3		52·1		53·2		51·7
	Means for 22 years, 1866-87		47·6		49·6		49·7		51·6		52·0		52·5		51·1		50·5		51·0		52·6		51·1		52·4		51·5		—		51·3

TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE TWENTY-TWO YEARS, 1866 TO 1887.

		Wheat Districts.	Grazing, &c. Districts.	Generally.
Rainfall	Driest	Ins. 3·1 in 1870	Ins. 4·2 in 1887	Ins. 3·9 in 1887
	Wettest	9·4 in 1879	10·3 in 1872 and 1878 10·2 in 1879 and 1882	9·8 in 1879
Temperature	Coldest	48°4 in 1879	49°1 in 1879 and 1885	48°8 in 1879
	Warmest	54·0 in 1868	53·6 in 1868	53·8 in 1868

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TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE SECOND QUARTER, 1887.

YEAR AND MONTHS.	0. Scotland, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the &c. Grazing, Districts.					
	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.
Rainfall.—Number of Days with Rain.																														
April	14	74	11	54	14	52	13	46	9	44	12	46	12	48	13	60	10	48	11	49	11	58	11	51	11	52	13	55	12	51
May	14	88	14	68	15	67	17	63	16	60	15	61	15	63	11	71	11	59	13	62	11	69	9	60	11	63	15	70	13	64
June	17	105	7	75	4	71	5	68	6	66	4	65	5	68	10	81	6	65	5	67	7	76	6	66	7	70	7	77	6	70
Rainfall.—Amounts in Inches.																														
April	2·22	14·33	1·34	6·67	0·92	4·71	1·15	4·90	1·19	5·27	1·52	5·66	1·22	5·44	2·52	12·57	1·20	7·09	1·71	7·24	1·72	9·02	1·52	9·09	1·73	9·00	1·83	6·08	1·48	7·24
May	1·64	15·97	1·44	8·11	1·58	6·29	1·89	6·79	1·28	6·55	1·22	6·88	1·48	6·92	1·76	14·33	1·74	8·83	1·17	8·41	1·81	10·83	1·04	10·13	1·50	10·50	1·29	7·37	1·49	8·73
June	2·31	18·28	0·91	9·02	0·52	6·81	0·55	7·34	1·54	8·09	1·09	7·97	0·92	7·84	1·50	15·83	0·85	9·68	0·58	8·99	1·01	11·84	0·76	10·89	0·94	11·44	0·63	8·00	0·93	9·66
Accumulated Heat.—Day Degrees above 42° F.																														
April	78	213	114	305	96	259	128	267	129	305	138	317	121	291	109	271	101	238	141	346	128	365	144	443	125	334	131	346	123	312
May	164	377	215	520	154	413	190	457	199	504	231	548	193	489	231	502	191	429	235	581	229	594	268	711	231	565	243	589	215	527
June	442	819	545	1065	554	967	598	1055	632	1136	614	1162	589	1078	544	1046	593	1022	633	1214	626	1220	664	1375	612	1177	629	1218	601	1128
Accumulated Heat.—Day Degrees below 42° F.																														
April	129	525	110	563	93	560	90	664	117	664	71	524	96	595	92	439	82	497	64	405	78	370	79	336	79	410	7	170	88	504
May	22	547	21	584	4	564	11	675	6	670	0	524	8	603	6	445	4	501	0	405	3	373	0	336	3	413	0	170	6	510
June	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
Bright Sunshine.—Number of Hours.																														
April	103	290	131	411	156	431	175	485	163	410	170	431	159	434	179	410	174	431	212	545	169	416	231	540	193	469	200	607	176	452
May	95	385	136	547	82	513	116	601	114	524	139	570	117	551	165	575	139	570	165	710	157	573	168	708	159	628	190	797	138	590
June	181	566	250	797	245	758	320	921	300	824	318	888	287	838	272	847	315	885	361	1071	273	846	310	1018	306	934	353	1150	297	887
Bright Sunshine.—Percentage of possible Duration.																														
April	26	24	33	33	40	33	45	36	42	30	43	32	43	33	46	31	45	31	54	40	43	31	59	39	49	34	52	46	46	34
May	21	23	30	32	19	31	27	36	26	31	33	34	27	33	37	32	31	33	39	42	36	33	38	41	36	36	45	46	31	35
June	29	23	41	33	42	31	56	37	52	33	56	36	49	34	46	34	54	35	64	43	47	35	53	42	53	38	63	48	51	36

1887.

EXPLANATION OF TABLES.

TABLES I. and IA. are merely in continuation of the Tables given in the Quarterly Summaries of the Weekly Weather Reports, 1884 to 1886. The whole of the values for 1878-87, however, have been corrected by information received since they were first published.

TABLE II. In this Table the monthly values for *April* are those for the fourteenth to seventeenth weeks in the year; those for *May* are for the eighteenth to the twenty-first weeks; those for *June* are for the twenty-second to the twenty-sixth weeks of the year.

The figures given in the columns headed "Since Jan. 4" are the values for the whole period elapsed since the beginning of the first week of the year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for the "Grazing, &c. Districts" the values for the "Channel Islands," are not included.

The Means for the British Islands generally are those for the Wheat Districts and Grazing Districts combined.

QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1887.

VOL. IV. APPENDIX I.] *New Series.* THIRD QUARTER—JULY TO SEPTEMBER. [*Price 4d.*

TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE THIRD QUARTER OF THE TWENTY-TWO YEARS, 1866 TO 1887.

	YEARS.	Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
		0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the &c. Grazing Districts.					
		Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.
RAINFALL (in Inches).	1866	—	11·8	—	10·6	—	9·3	—	7·9	—	11·7	—	9·7	—	9·8	—	15·1	—	16·1	—	15·2	—	12·0	—	8·9	—	13·5	—	—	—	11·7
	1867	—	10·0	—	10·1	—	7·1	—	7·1	—	7·4	—	8·6	—	8·1	—	12·9	—	10·4	—	8·7	—	11·8	—	8·8	—	10·5	—	—	—	9·3
	1868	—	9·7	—	10·4	—	6·0	—	4·2	—	7·1	—	7·2	—	7·0	—	9·1	—	6·7	—	9·5	—	8·1	—	11·0	—	8·9	—	—	—	8·0
	1869	—	12·8	—	7·0	—	5·8	—	5·6	—	6·4	—	6·0	—	6·2	—	10·4	—	11·5	—	9·9	—	9·4	—	8·5	—	9·9	—	—	—	8·1
	1870	—	8·6	—	5·8	—	3·5	—	5·8	—	4·5	—	4·8	—	4·9	—	6·8	—	5·0	—	7·0	—	7·6	—	5·7	—	6·4	—	—	—	5·7
	1871	—	13·0	—	8·7	—	9·7	—	7·5	—	10·8	—	10·3	—	9·4	—	9·8	—	11·8	—	14·2	—	11·1	—	10·5	—	11·5	—	—	—	10·5
	1872	—	12·1	—	12·5	—	10·4	—	9·8	—	9·4	—	6·6	—	9·7	—	16·1	—	15·8	—	13·1	—	14·7	—	11·2	—	14·2	—	—	—	12·0
	1873	—	13·7	—	11·8	—	7·2	—	6·4	—	6·8	—	7·3	—	7·9	—	15·7	—	11·8	—	14·0	—	14·2	—	11·8	—	13·5	—	—	—	10·7
	1874	—	15·5	—	11·6	—	5·8	—	5·1	—	7·1	—	6·3	—	7·2	—	13·4	—	12·6	—	13·8	—	11·8	—	10·1	—	12·3	—	—	—	9·8
	1875	—	11·2	—	8·9	—	9·1	—	8·6	—	11·5	—	9·4	—	9·5	—	11·2	—	12·7	—	15·3	—	9·2	—	10·6	—	11·8	—	—	—	10·7
	Means for 10 years, 1866-75	—	11·8	—	9·7	—	7·4	—	6·8	—	8·3	—	7·6	—	8·0	—	12·1	—	11·4	—	12·1	—	11·0	—	9·7	—	11·3	—	—	—	9·7
	1876	—	8·9	—	7·4	—	8·0	—	8·1	—	9·0	—	7·9	—	8·1	—	10·3	—	11·2	—	13·8	—	10·0	—	9·6	—	11·0	—	—	—	9·6
	1877	—	10·8	—	11·3	—	10·1	—	8·1	—	10·4	—	7·6	—	9·5	—	12·6	—	15·4	—	14·5	—	12·0	—	10·4	—	13·0	—	—	—	11·3
	1878	51	8·0	47	8·0	46	8·4	48	6·9	43	9·1	40	7·5	44	8·0	47	10·5	48	10·8	44	9·2	55	8·1	51	10·5	48	9·8	52	8·5	46	8·9
	1879	59	9·8	55	9·9	53	9·0	61	12·1	54	10·8	56	11·2	55	10·6	64	15·8	62	13·9	61	12·9	68	15·5	64	12·4	64	14·1	63	10·3	60	12·4
	1880	40	7·5	46	7·7	45	10·5	46	10·0	44	11·2	43	9·4	46	9·8	46	9·4	46	10·0	47	7·7	54	9·8	49	10·8	48	9·5	55	8·0	47	9·7
	1881	49	6·5	50	9·1	51	10·3	51	8·5	47	8·3	47	8·2	49	8·9	55	10·4	50	11·0	49	9·4	63	8·6	55	10·3	54	9·9	51	7·8	52	9·4
	1882	60	8·2	57	8·0	56	6·9	48	7·0	55	8·1	49	7·2	53	7·4	57	12·3	55	11·5	57	13·2	65	11·5	59	11·1	59	11·9	59	8·1	56	9·7
	1883	59	8·5	57	10·1	51	8·3	52	8·1	50	8·9	49	6·7	52	8·4	54	12·2	51	9·8	58	10·1	61	11·4	57	12·8	56	11·3	62	9·5	54	9·9
	1884	53	7·8	48	6·3	35	5·3	38	7·4	40	6·2	44	5·9	41	6·2	55	12·3	48	9·0	52	8·6	59	10·2	48	7·1	52	9·4	52	7·1	47	7·8
	1885	59	8·1	45	6·0	36	5·7	36	6·2	35	5·9	33	5·1	37	5·8	46	11·6	43	7·8	42	8·8	51	9·9	46	9·9	46	9·6	45	5·7	42	7·7
	Means for 10 years, 1876-85	—	8·4	—	8·4	—	8·3	—	8·2	—	8·8	—	7·7	—	8·3	—	11·7	—	11·2	—	10·8	—	10·7	—	10·5	—	10·9	—	—	—	9·6
	1886	59	8·7	43	5·0	41	6·8	38	6·5	39	6·4	35	5·8	39	6·1	48	11·4	42	10·3	40	9·3	54	9·3	53	10·9	47	10·2	48	7·2	43	8·2
	1887	63	10·3	53	7·6	44	6·1	42	5·4	35	5·2	35	5·8	42	6·0	49	10·8	43	7·1	37	7·3	55	10·5	46	7·9	46	8·7	40	6·2	44	7·4
	Means for 22 years, 1866-87	—	10·1	—	8·8	—	7·7	—	7·4	—	8·3	—	7·5	—	7·9	—	11·8	—	11·0	—	11·2	—	10·8	—	10·0	—	11·0	—	—	—	9·5
MEAN TEMPERATURE (in Degrees Fahrenheit).	1866		53°2		55°4		55°4		57°6		56°8		58°1		56°7		56°2		56°8		58°4		56°0		57°2		56°9		—		56°8
	1867		53°7		56°0		55°9		58°8		58°5		59°2		57°7		57°2		58°2		60°0		58°5		59°4		58°7		—		58 2
	1868		55°0		58°5		58°8		62°5		62°4		62°4		60°9		59°5		61°2		63°6		59°1		60°8		60°8		—		60°9
	1869		54°4		57°4		57°6		60°2		60°5		60°3		59°2		58°2		59°1		61°4		59°5		59°8		59°6		—		59°4
	1870		55°6		58°1		57°2		59°6		60°5		60°3		59°1		58°5		59°5		61°7		59°6		60°3		59°9		—		59°5
	1871		55°1		57°4		57°5		59°9		59°5		60°1		58°9		57°3		58°3		60·6		57°2		58°0		58°3		—		58°6
	1872		54°0		55°9		57°1		59°7		60°1		60°3		58°6		57°7		59°1		60°7		57°9		59°3		58°9		—		58°8
	1873		54°1		56°4		57°3		59°1		58°7		59°4		58°2		57°4		57°8		59°5		56°6		57°9		57°8		—		58°0
	1874		54°4		56°7		57°9		60°2		60°3		60°2		59°1		57°8		58°8		60°6		56°9		59°0		58°6		—		58°9
	1875		54°8		57°0		57°8		59°7		59°6		60°2		58°9		58°4		58°7		60°6		57°5		60°0		59°0		—		59°0
	Means for 10 years, 1866-75		54°4		56°9		57°3		59°7		59°7		60°1		58°7		57°8		58°8		60°7		57°9		59°2		58°9		—		58°8
	1876		54°3		56°3		57°7		60°4		60°7		61°1		59°2		57°6		58°8		61°0		56°6		59°4		58°7		—		59°0
	1877		53°7		55°0		55°5		57°9		57°7		58°2		56°9		55°3		56°0		58°3		55°1		57°3		56°4		—		56°7
	1878		55°2		58°5		59°1		60°4		60°2		61°6		60°0		59°2		59°5		61°3		58°8		60°7		59°9		62°1		60°0
	1879		52°4		54°2		56°2		58°1		57°8		58°7		57°0		55°2		56°2		57°5		54°8		57°5		56°2		58°5		56°6
	1880		55°9		57°8		59°5		61°1		60°1		62°1		60°1		58°6		59°8		61°3		58°8		60°1		59°7		61°5		59°9
	1881		52°1		56°8		56°8		58°6		57°7		59°4		57°9		54°8		56°4		57°5		55°8		56°4		56°2		59°8		57°1
	1882		54°2		56°6		57°7		58°2		57°1		58°8		57°7		56°0		56°8		57°4		55°9		56°2		56°5		58°9		57°1
	1883		52°9		55°8		56°9		58°5		57°7		59°5		57°7		55°9		57°2		57°5		55°8		56°9		56°7		59°1		57°2
	1884		54°5		57°5		59°1		61°8		60°7		62°4		60°3		58°2		59°6		60°5		57°9		59°0		59°0		61°7		59°7
	1885		51°7		55°0		56°2		58°0		57°7		59°6		57°3		54°8		56°2		57°7		55°7		57°3		56°3		59°6		56°8
	Means for 10 years, 1876-85		53°6		56°4		57°5		59°3		58°7		60°1		58°4		56°6		57°7		59°0		56°5		58°1		57°6		—		58°0
	1886		52°4		56°1		58°1		60°2		59°7		61°3		59°1		55°8		57°7		59°4		56°5		58°2		57°5		61°0		58°3
	1887		52°9		55°8		57°1		59°1		58°2		59°7		58°0		55°6		57°5		58°7		56°5		58°4		57°3		61°2		57°7
	Means for 22 years, 1866-87		53°9		56°6		57°4		59°5		59°2		60°1		58°6		57°1		58°1		59°8		57°1		58°6		58°1		—		58°4

TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE TWENTY-TWO YEARS, 1866 TO 1887.

		Wheat Districts.	Grazing, &c. Districts.	Generally.
Rainfall	Driest	Ins. 4·9 in 1870	Ins. 6·4 in 1870	Ins. 5·7 in 1870
	Wettest	10·6 in 1879	14·2 in 1872	12·4 in 1879
Temperature	Coldest	56°·7 in 1866	56°·2 in 1879 and 1881	56°·6 in 1879
	Warmest	60°·9 in 1868	60°·8 in 1868	60°·9 in 1868

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TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE THIRD QUARTER, 1887.

YEAR AND MONTHS.	0. Scotland, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the &c. Grazing, Districts.					
	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.
Rainfall.—Number of Days with Rain.																														
July	20	125	18	93	12	83	9	77	8	74	7	72	11	79	18	99	12	77	11	78	19	95	15	81	15	85	9	86	13	85
August	19	144	13	106	10	93	10	87	8	82	8	80	10	89	12	111	10	87	7	85	17	112	13	94	12	97	10	96	11	94
September	24	168	22	128	22	115	23	110	19	101	20	100	21	110	19	130	21	108	19	104	19	131	18	112	19	116	21	117	20	114
Rainfall.—Amounts in Inches.																														
July	3·88	22·16	1·99	11·01	0·89	7·70	1·33	8·67	1·03	9·12	0·86	8·83	1·22	9·06	3·54	19·37	1·60	11·28	1·93	10·92	2·98	14·82	2·13	13·02	2·44	13·88	0·83	8·83	1·83	11·49
August	2·41	24·57	1·79	12·80	1·29	8·99	1·23	9·90	1·20	10·32	1·40	10·23	1·38	10·44	2·26	21·63	1·30	12·58	0·96	11·88	2·90	17·72	2·65	15·67	2·01	15·89	2·41	11·24	1·70	13·19
September	3·99	28·56	3·86	16·66	3·92	12·91	2·79	12·69	2·99	13·31	3·51	13·74	3·41	13·85	5·01	26·64	4·18	16·76	4·39	16·27	4·61	22·33	3·07	18·74	4·25	20·14	2·94	14·18	3·83	17·02
Accumulated Heat.—Day Degrees above 42° F.																														
July	355	1174	466	1531	532	1499	591	1646	569	1705	584	1746	548	1626	454	1500	518	1540	546	1760	483	1701	543	1918	509	1686	595	1813	529	1657
August	330	1504	401	1932	440	1939	502	2148	482	2187	539	2285	473	2099	392	1892	463	2003	502	2262	437	2138	491	2409	457	2143	572	2385	465	2122
September	273	1777	344	2276	365	2304	414	2562	380	2567	444	2729	389	2488	349	2241	391	2394	421	2683	368	2506	416	2825	389	2532	546	2931	389	2511
Accumulated Heat.—Day Degrees below 42° F.																														
July	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
August	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
September	0	547	2	586	0	564	1	676	5	675	0	524	2	605	0	445	0	501	0	405	0	373	0	336	0	413	0	170	1	511
Bright Sunshine.—Number of Hours.																														
July	135	701	165	967	190	948	251	1172	208	1032	232	1120	209	1048	182	1029	195	1080	222	1293	140	986	167	1185	181	1115	251	1401	195	1082
August	97	798	142	1109	161	1109	202	1374	197	1229	217	1337	184	1232	157	1186	167	1247	250	1543	133	1119	158	1343	173	1288	271	1672	179	1261
September	92	890	116	1225	102	1211	120	1494	123	1352	149	1486	122	1354	143	1329	125	1372	168	1713	102	1221	156	1499	139	1427	182	1854	131	1392
Bright Sunshine.—Percentage of possible Duration.																														
July	28	25	36	34	42	34	57	41	47	37	53	40	47	37	40	37	43	39	51	47	31	36	38	43	41	40	56	51	44	39
August	23	25	34	34	39	35	50	44	48	38	54	42	45	39	38	37	41	39	62	49	33	35	39	43	43	41	68	53	44	40
September	21	24	26	34	23	34	27	42	28	38	34	42	28	38	33	37	28	38	40	48	23	34	36	42	32	40	42	52	30	39

1887.

EXPLANATION OF TABLES.

TABLES I. and IA. are merely in continuation of the Tables given in the Quarterly Summaries of the Weekly Weather Reports, 1884 to 1886. The whole of the values for 1878-87, however, have been corrected by information received since they were first published.

TABLE II. In this Table the monthly values for *July* are those for the twenty-seventh to thirtieth weeks in the year; those for *August* are for the thirty-first to the thirty-fourth weeks; those for *September* are for the thirty-fifth to the thirty-ninth weeks.

The figures given in the columns headed "Since Jan. 4" are the values for the whole period elapsed since the beginning of the first week of the year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for the "Grazing, &c. Districts" the values for the "Channel Islands," are not included.

The Means for the British Islands generally are those for the Wheat Districts and Grazing Districts combined.

(OFFICIAL COPY.)

QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1887.

VOL. IV. APPENDIX I.] *New Series.*

FOURTH QUARTER—OCTOBER TO DECEMBER.

[*Price 4d.*

TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE FOURTH QUARTER OF THE TWENTY-TWO YEARS, 1866 TO 1887.

	YEARS.	Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
		0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the &c. Grazing, Districts.					
		Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.
RAINFALL (in Inches).	1866	—	20·6	—	9·0	—	6·0	—	5·9	—	6·7	—	6·3	—	6·8	—	14·4	—	15·3	—	12·4	—	11·9	—	9·2	—	12·6	—	—	—	9·7
	1867	—	16·8	—	5·7	—	4·8	—	5·7	—	5·5	—	5·8	—	5·5	—	10·4	—	10·3	—	12·1	—	9·6	—	7·5	—	10·0	—	—	—	7·8
	1868	—	19·0	—	10·3	—	9·5	—	7·9	—	9·7	—	11·4	—	9·8	—	15·1	—	18·5	—	18·3	—	14·0	—	14·3	—	16·0	—	—	—	12·9
	1869	—	19·8	—	9·8	—	7·9	—	9·1	—	7·7	—	8·5	—	8·6	—	14·0	—	13·6	—	14·3	—	13·1	—	9·5	—	12·9	—	—	—	10·8
	1870	—	16·0	—	9·3	—	10·5	—	8·4	—	8·6	—	9·5	—	9·3	—	10·6	—	16·0	—	15·9	—	14·6	—	12·2	—	13·9	—	—	—	11·6
	1871	—	15·1	—	7·3	—	5·4	—	4·3	—	4·2	—	4·6	—	5·2	—	10·7	—	10·7	—	12·4	—	7·6	—	9·4	—	10·2	—	—	—	7·7
	1872	—	18·0	—	15·0	—	11·6	—	10·6	—	12·0	—	16·5	—	13·1	—	16·3	—	17·4	—	25·1	—	16·8	—	17·6	—	18·6	—	—	—	15·9
	1873	—	21·2	—	9·6	—	3·5	—	4·6	—	4·6	—	6·5	—	5·8	—	11·7	—	10·6	—	9·4	—	7·9	—	7·7	—	9·5	—	—	—	7·7
	1874	—	17·8	—	9·2	—	8·0	—	7·0	—	7·4	—	10·6	—	8·4	—	14·4	—	15·0	—	16·0	—	13·0	—	12·7	—	14·2	—	—	—	11·3
	1875	—	13·7	—	11·1	—	10·1	—	9·6	—	11·4	—	11·2	—	10·7	—	12·5	—	12·7	—	18·5	—	10·1	—	13·1	—	13·4	—	—	—	12·1
	Means for 10 years, 1866-75	—	17·8	—	9·6	—	7·7	—	7·3	—	7·8	—	9·1	—	8·3	—	13·0	—	14·0	—	15·4	—	11·9	—	11·3	—	13·1	—	—	—	10·7
	1876	—	13·7	—	13·2	—	10·5	—	7·5	—	11·7	—	13·4	—	11·3	—	16·0	—	14·1	—	19·1	—	14·4	—	17·6	—	16·2	—	—	—	13·8
	1877	—	23·1	—	11·3	—	6·4	—	6·4	—	7·4	—	10·6	—	8·4	—	18·1	—	17·8	—	17·2	—	14·3	—	14·0	—	16·3	—	—	—	12·4
	1878	72	11·1	53	8·1	60	10·4	57	9·6	51	7·8	48	8·3	54	8·8	45	11·0	55	9·1	64	13·3	65	11·7	53	8·1	56	10·6	74	15·4	55	9·7
	1879	58	8·6	41	4·8	38	3·6	44	3·3	33	2·8	32	2·5	38	3·4	37	6·5	35	5·2	31	4·3	42	4·9	37	4·2	36	5·0	38	4·2	37	4·2
	1880	75	12·6	54	8·2	56	9·8	58	9·4	49	11·0	51	12·9	54	10·3	57	12·2	53	13·6	58	16·4	60	9·6	53	12·4	56	12·8	69	18·2	55	11·6
	1881	64	11·2	58	7·2	54	7·2	60	8·5	51	8·6	52	9·5	55	8·2	56	15·8	54	11·9	59	14·2	65	12·1	62	13·4	59	13·5	65	12·6	57	10·9
	1882	71	11·9	67	11·4	72	11·2	69	11·7	71	13·0	67	12·6	69	12·0	63	16·9	67	13·2	74	19·8	65	12·5	68	14·8	67	15·4	83	19·0	68	13·7
	1883	75	14·8	48	5·8	53	5·8	60	7·6	52	7·4	49	7·2	52	6·8	66	18·4	57	11·3	62	11·8	71	12·2	60	11·1	63	13·0	63	10·3	58	9·9
	1884	68	14·6	52	6·9	44	5·1	50	6·9	47	5·3	42	6·0	47	6·0	52	16·1	51	8·7	57	10·2	64	13·2	54	9·8	56	11·6	62	8·7	52	8·8
	1885	63	11·0	45	4·6	51	7·0	55	9·2	52	8·6	50	9·0	51	7·7	52	11·8	50	9·8	59	12·7	54	8·9	59	10·1	55	10·7	62	11·3	53	9·2
	Means for 10 years, 1876-85	—	13·3	—	8·2	—	7·7	—	8·0	—	8·4	—	9·2	—	8·3	—	14·3	—	11·5	—	13·9	—	11·4	—	11·6	—	12·5	—	—	—	10·4
	1886	75	14·3	60	7·8	56	10·0	58	9·5	64	10·9	67	14·4	61	10·5	65	16·8	69	14·3	75	19·1	71	15·5	69	16·0	70	16·3	85	16·3	66	13·4
	1887	73	13·0	55	7·8	59	7·7	56	6·3	47	5·9	50	7·8	53	7·1	51	12·4	55	8·1	55	12·0	57	10·0	47	9·7	53	10·4	64	11·9	53	8·8
	Means for 22 years, 1866-87	—	15·4	—	8·8	—	7·8	—	7·7	—	8·1	—	9·3	—	8·3	—	13·7	—	12·6	—	14·8	—	11·7	—	11·6	—	12·9	—	—	—	10·6
MEAN TEMPERATURE (in Degrees Fahrenheit).	1866	43°6		44°2		45°1		46°1		45°7		46°8		45°6		46°0		46°2		50°3		45°4		46°9		47°0		—		46°3	
	1867	43·9		42·9		42·3		43·0		42·6		43·2		42·8		43·4		42·9		45·8		44·2		44·9		44·2		—		43·5	
	1868	42·0		42·0		43·1		44·8		44·3		45·5		43·9		43·6		44·2		48·1		44·0		45·5		45·1		—		44·5	
	1869	40·9		41·5		41·8		42·7		42·9		43·7		42·5		42·5		43·9		46·6		44·7		45·5		44·6		—		43·6	
	1870	40·3		40·0		40·3		41·6		41·3		41·9		41·0		40·5		41·6		44·4		41·5		43·2		42·2		—		41·6	
	1871	42·2		42·1		42·3		41·5		41·7		41·8		41·9		42·4		43·0		45·3		43·2		44·7		43·7		—		42·8	
	1872	42·4		42·0		43·3		44·4		44·2		45·4		43·9		43·6		44·4		47·3		42·8		44·1		44·4		—		44·2	
	1873	43·4		42·9		44·2		43·9		43·6		44·5		43·8		44·2		44·7		46·9		44·3		46·3		45·3		—		44·6	
	1874	41·4		39·9		40·8		41·8		41·7		43·0		41·4		40·5		42·3		46·0		42·8		45·7		43·5		—		42·5	
	1875	42·7		42·1		43·0		42·7		43·0		43·5		42·9		42·8		43·6		45·9		43·5		46·0		44·4		—		43·7	
	Means for 10 years, 1866-75	42·3		42·0		42·6		43·3		43·1		43·9		43·0		43·0		43·7		46·7		43·6		45·3		44·4		—		43·7	
	1876	44·0		43·4		45·2		46·2		44·8		47·2		45·4		44·6		46·1		49·0		45·7		48·1		46·7		—		46·1	
	1877	42·9		43·3		43·6		44·4		44·1		44·8		44·0		44·5		45·3		49·2		44·4		47·4		46·2		—		45·1	
	1878	40·5		39·7		39·8		40·8		40·7		42·3		40·7		40·9		41·5		44·5		42·1		42·8		42·4		47·4		41·6	
	1879	41·8		41·0		40·3		39·7		39·8		41·2		40·4		42·2		42·0		45·3		43·0		45·0		43·5		46·9		42·0	
	1880	39·1		40·4		42·4		43·6		42·7		45·3		42·9		42·2		43·6		47·7		42·9		44·9		44·3		49·7		43·6	
	1881	43·2		43·0		43·2		43·5		43·2		45·2		43·6		44·3		44·5		47·7		44·3		46·8		45·5		49·3		44·6	
	1882	41·3		40·1		43·6		43·5		42·8		45·5		42·9		42·2		44·0		46·5		42·8		44·6		44·0		49·3		43·5	
	1883	42·4		43·0		43·8		44·2		43·8		45·6		44·1		44·3		45·0		46·9		44·6		46·5		45·5		49·5		44·8	
	1884	44·4		42·6		43·8		43·6		43·3		45·3		43·7		43·8		44·4		46·2		44·1		45·1		44·7		49·3		44·2	
	1885	41·5		41·5		42·6		42·3		41·9		44·0		42·5		42·9		42·7		45·0		43·7		45·1		43·9		48·3		43·2	
	Means for 10 years, 1876-85	42·1		41·8		42·7		43·2		42·7		44·6		43·0		43·2		43·9		46·8		43·8		45·6		44·7		—		43·9	
	1886	42·6		42·5		43·6		43·9		43·5		45·6		43·8		44·4		44·7		46·3		44·2		45·8		45·1		49·8		44·5	
	1887	39·2		39·4		40·3		40·2		39·9		41·7		40·3		40·7		41·3		42·7		41·8		42·8		41·9		46·5		41·1	
	Means for 22 years, 1866-87	42·1		41·8		42·7		43·1		42·8		44·2		42·9		43·0		43·7		46·5		43·6		45·4		44·4		—		43·7	

TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE TWENTY-TWO YEARS, 1866 TO 1887.

——		Wheat Districts.	Grazing, &c. Districts.	Generally.
Rainfall	Driest	Ins. 3·4 in 1879	Ins. 5·0 in 1879	Ins. 4·2 in 1879
	Wettest	13·1 in 1872	18·6 in 1872	15·9 in 1872
Temperature	Coldest	40°3 in 1887	41°9 in 1887	41°1 in 1887
	Warmest	45·6 in 1866	47·0 in 1866	46·3 in 1866

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TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE FOURTH QUARTER, 1887.

YEAR AND MONTHS.	0. Scotland, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the Grazing, &c. Districts.					
	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.	For the Month.	Since Jan. 4.
Rainfall.—Number of Days with Rain.																														
October -	24	192	14	142	16	131	14	124	11	112	10	110	13	123	13	143	15	123	13	117	15	146	8	120	13	129	15	132	13	127
November -	19	211	20	162	19	150	19	143	16	128	21	131	19	142	16	159	16	139	19	136	17	163	17	137	17	146	22	154	18	145
December -	30	241	21	183	24	174	23	166	20	148	19	150	21	163	22	181	24	163	23	159	25	188	22	159	23	169	27	181	22	167
Rainfall.—Amounts in Inches.																														
October -	4·07	32·63	2·01	18·67	2·71	15·62	2·29	14·98	2·00	15·31	1·56	15·30	2·11	15·96	2·91	29·55	2·49	19·25	3·61	19·88	2·62	24·95	2·62	21·36	2·85	22·99	3·50	17·68	2·48	19·50
November -	3·40	36·03	3·33	22·00	2·37	17·99	2·45	17·43	2·00	17·31	3·93	19·23	2·82	18·78	3·70	33·25	2·16	21·41	4·03	23·91	3·30	28·25	3·15	24·51	3·27	26·26	4·31	21·99	3·05	22·55
December -	5·51	41·54	2·43	24·43	2·59	20·58	1·55	18·98	1·93	19·24	2·31	21·54	2·16	20·94	5·74	38·99	3·45	24·86	4·39	28·30	4·05	32·30	3·96	28·47	4·32	30·58	4·04	26·03	3·24	25·79
Accumulated Heat.—Day Degrees above 42° F.																														
October -	86	1863	121	2397	110	2414	144	2706	135	2702	167	2896	135	2622	120	2361	127	2521	166	2849	130	2636	164	2989	141	2672	216	3147	138	2648
November -	36	1899	33	2430	46	2460	63	2769	57	2759	76	2972	55	2677	46	2407	48	2569	78	2927	59	2695	75	3064	61	2733	138	3285	58	2706
December -	11	1910	13	2443	15	2475	21	2790	28	2787	61	3033	28	2705	32	2439	28	2597	79	3006	37	2732	62	3126	48	2781	108	3393	38	2744
Accumulated Heat.—Day Degrees below 42° F.																														
October -	58	605	66	652	49	613	69	745	78	753	69	593	66	671	54	499	26	527	34	439	17	390	23	359	31	444	0	170	49	560
November -	93	698	100	752	78	691	104	849	113	866	64	657	92	763	87	586	74	601	59	498	75	465	78	437	75	519	9	179	84	644
December -	240	938	240	992	208	899	232	1081	229	1095	179	836	218	981	178	764	162	763	124	622	151	616	129	566	149	668	45	224	183	827
Bright Sunshine.—Number of Hours.																														
October -	48	938	86	1311	91	1302	93	1587	96	1448	102	1588	94	1448	83	1412	76	1448	98	1811	64	1285	87	1586	82	1509	116	1970	88	1480
November -	28	966	34	1345	29	1331	59	1646	50	1498	44	1632	43	1491	39	1451	38	1486	71	1882	52	1337	68	1654	54	1563	71	2041	49	1529
December -	24	990	29	1374	46	1377	57	1703	48	1546	49	1681	46	1537	33	1484	33	1519	73	1955	33	1370	54	1708	45	1608	79	2120	46	1575
Bright Sunshine.—Percentage of possible Duration.																														
October -	17	24	31	33	33	33	33	41	34	37	35	41	33	37	29	36	27	37	34	47	22	33	30	41	28	39	40	51	31	38
November -	13	23	15	32	13	32	25	40	21	37	18	40	18	36	17	35	17	36	29	46	22	32	28	40	23	38	28	50	21	37
December -	11	23	12	32	18	32	21	39	18	36	18	39	17	36	12	34	14	35	27	45	13	31	21	39	17	37	28	48	17	37

1887.

EXPLANATION OF TABLES.

TABLES I. and Ia. are merely in continuation of the Tables given in the Quarterly Summaries of the Weekly Weather Reports, 1884 to 1886. The whole of the values for 1878-87, however, have been corrected by information received since they were first published.

TABLE II. In this Table the monthly values for *October* are those for the fortieth to forty-third weeks in the year; those for *November* are for the forty-fourth to the forty-seventh weeks; those for *December* are for the forty-eighth to the fifty-second weeks.

The figures given in the columns headed "Since Jan. 4" are the values for the whole period elapsed since the beginning of the first week of the year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for the "Grazing, &c. Districts" the values for the "Channel Islands," are not included.

The Means for the British Islands generally are those for the Wheat Districts and Grazing Districts combined.

SUMMARY OF THE WEEKLY WEATHER REPORT, 1887.

VOL. IV. APPENDIX I.] *New Series.* VALUES FOR THE WHOLE YEAR. [*Price 4d.*

TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE WHOLE YEAR DURING THE TWENTY-TWO YEARS, 1866 TO 1887.

	YEARS.	Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
		0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for the Grazing, &c. Districts.					
		Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.	Days.	Inches.
RAINFALL (in inches).	1866	—	53·4	—	35·7	—	26·3	—	27·2	—	31·8	—	34·1	—	31·0	—	50·0	—	51·1	—	51·0	—	44·3	—	38·3	—	46·9	—	—	—	39·0
	1867	—	48·1	—	33·3	—	24·1	—	24·7	—	27·7	—	29·0	—	27·8	—	43·7	—	40·1	—	46·0	—	43·2	—	36·3	—	41·9	—	—	—	34·9
	1868	—	58·7	—	38·5	—	24·1	—	20·7	—	26·8	—	30·2	—	28·1	—	49·5	—	42·9	—	45·6	—	41·7	—	42·1	—	44·4	—	—	—	36·3
	1869	—	51·1	—	31·0	—	27·4	—	25·9	—	29·3	—	30·1	—	28·7	—	40·6	—	44·9	—	46·4	—	42·3	—	37·9	—	42·4	—	—	—	35·6
	1870	—	40·5	—	25·9	—	23·1	—	20·4	—	20·7	—	22·7	—	22·6	—	33·6	—	35·7	—	37·8	—	37·2	—	32·2	—	35·3	—	—	—	29·0
	1871	—	41·8	—	29·0	—	26·4	—	23·1	—	27·3	—	28·7	—	26·9	—	40·5	—	38·9	—	45·0	—	36·9	—	37·0	—	39·7	—	—	—	33·3
	1872	—	49·7	—	49·1	—	37·2	—	33·1	—	39·8	—	41·7	—	40·2	—	58·8	—	59·2	—	68·6	—	54·0	—	49·5	—	58·0	—	—	—	49·1
	1873	—	50·7	—	34·5	—	20·8	—	21·1	—	24·1	—	26·5	—	25·4	—	42·5	—	36·7	—	43·4	—	37·2	—	36·5	—	39·3	—	—	—	32·4
	1874	—	54·8	—	31·8	—	20·7	—	19·1	—	24·1	—	26·6	—	24·5	—	41·9	—	43·6	—	46·8	—	40·0	—	34·7	—	41·4	—	—	—	33·0
	1875	—	42·0	—	32·5	—	27·3	—	26·8	—	35·1	—	33·3	—	31·0	—	40·0	—	41·7	—	56·2	—	33·4	—	40·4	—	42·3	—	—	—	36·7
	Means for 10 years, 1866–75	—	49·1	—	34·1	—	25·7	—	24·2	—	28·7	—	30·3	—	28·6	—	44·1	—	43·5	—	48·7	—	41·0	—	38·5	—	43·2	—	—	—	35·9
	1876	—	44·4	—	36·2	—	31·0	—	27·2	—	34·4	—	33·7	—	32·5	—	44·8	—	44·3	—	49·3	—	40·0	—	42·2	—	44·1	—	—	—	38·3
	1877	—	55·9	—	41·2	—	30·3	—	27·7	—	32·9	—	35·1	—	33·4	—	54·4	—	57·0	—	57·1	—	48·2	—	46·7	—	52·7	—	—	—	43·1
	1878	235	32·2	178	26·6	195	31·3	211	29·2	193	30·1	181	29·2	191	29·3	187	41·1	202	35·4	207	40·2	229	37·2	218	40·2	207	38·8	243	40·6	199	34·1
	1879	217	28·3	198	29·9	203	26·0	227	31·7	199	29·7	197	32·2	203	29·9	199	40·7	195	34·1	207	39·8	228	37·1	219	39·4	209	38·2	228	35·2	206	34·1
	1880	210	32·4	184	26·3	180	30·2	192	29·0	176	33·7	175	32·4	181	30·3	198	39·9	179	36·4	190	36·4	216	35·4	198	40·9	196	37·8	223	36·8	189	34·1
	1881	222	33·8	199	29·3	197	28·2	193	27·0	177	27·7	171	28·6	187	28·2	206	45·0	190	40·1	195	39·3	234	36·9	209	40·7	206	40·4	208	33·9	197	34·3
	1882	254	37·9	223	32·0	207	30·4	197	30·9	210	36·5	197	31·4	206	32·2	233	51·5	222	43·1	235	50·4	253	41·6	240	45·9	237	46·5	239	39·5	222	39·4
	1883	247	37·9	197	26·3	196	25·9	199	28·9	190	30·8	183	26·5	193	27·7	221	50·6	197	35·4	217	38·5	247	40·0	218	45·3	220	42·0	250	34·5	207	34·9
	1884	235	40·8	191	23·1	162	19·9	163	22·0	166	22·4	165	23·3	169	22·1	215	50·9	188	33·0	203	35·9	235	41·4	207	36·9	209	39·6	225	29·9	189	30·9
	1885	246	35·0	182	21·5	180	23·2	182	27·2	185	27·4	171	27·4	180	25·3	203	42·6	191	31·3	205	39·3	212	33·3	209	39·6	204	37·2	219	31·2	192	31·3
	Means for 10 years, 1876–85	—	37·9	—	29·2	—	27·6	—	28·1	—	30·6	—	30·0	—	29·1	—	46·2	—	39·0	—	42·6	—	39·1	—	41·8	—	41·7	—	—	—	35·4
	1886	263	39·1	204	24·9	199	29·2	193	26·2	202	33·1	195	32·9	199	29·3	218	48·1	214	43·0	218	46·5	234	42·8	227	46·3	222	45·3	251	38·6	211	37·3
	1887	241	41·6	183	24·4	174	20·6	166	19·1	148	19·2	150	21·5	164	26·0	181	38·7	163	24·9	159	28·3	188	32·3	159	28·5	170	30·5	181	26·2	167	25·8
	Means for 22 years, 1866–87	—	43·2	—	31·0	—	26·5	—	25·8	—	29·3	—	29·9	—	28·5	—	45·0	—	40·6	—	44·9	—	39·8	—	39·9	—	42·0	—	—	—	35·3
MEAN TEMPERATURE (in Degrees Fahrenheit).	1866	45°8		46°6		46°9		49°2		48°7		49°9		48°3		48°3		48°6		51°3		48°3		49°0		49°1		—		48°7	
	1867	45·4		46·5		45·9		48·3		47·9		48·6		47·4		47·4		47·8		50·2		48·5		49·3		48·6		—		48·0	
	1868	46·9		48·6		48·8		51·0		51·1		51·2		50·1		49·4		50·3		52·8		49·5		51·3		50·7		—		50·4	
	1869	45·8		47·2		47·3		48·7		49·1		49·4		48·3		48·2		48·9		51·7		49·6		50·6		49·8		—		49·1	
	1870	45·8		47·0		46·5		47·9		48·6		48·5		47·7		47·4		48·2		50·4		48·5		49·7		48·8		—		48·3	
	1871	46·1		46·9		46·6		47·5		48·3		48·4		47·5		47·6		48·0		50·7		48·6		50·0		49·0		—		48·3	
	1872	46·4		47·1		47·9		49·6		49·6		50·3		48·9		48·6		49·5		51·5		48·4		49·9		49·6		—		49·3	
	1873	46·1		46·9		47·3		47·9		48·3		48·9		47·9		48·1		48·4		50·4		48·2		49·6		48·9		—		48·4	
	1874	46·5		47·0		47·5		48·4		48·9		49·5		48·3		47·9		48·6		51·4		48·5		51·1		49·5		—		48·9	
	1875	46·6		47·4		47·7		48·4		48·7		49·2		48·3		48·2		48·6		50·6		48·3		51·0		49·4		—		48·9	
	Means for 10 years, 1866–75	46·1		47·1		47·2		48·7		48·9		49·4		48·3		48·1		48·7		51·1		48·7		50·2		49·4		—		48·9	
	1876	46·3		46·9		48·0		49·2		48·9		49·9		48·6		48·0		48·8		51·1		48·1		50·8		49·4		—		49·0	
	1877	45·2		46·2		47·0		48·7		48·7		49·5		48·0		47·4		48·2		51·2		47·6		50·5		49·0		—		48·5	
	1878	46·0		47·2		47·9		48·9		49·3		50·1		48·7		48·6		49·2		50·9		49·0		50·6		49·7		52·1		49·2	
	1879	43·8		44·1		45·0		45·8		45·8		46·9		45·5		45·6		45·9		48·4		46·1		48·3		46·9		49·6		46·2	
	1880	45·8		47·0		47·7		48·8		48·4		50·0		48·4		48·2		48·6		51·2		48·6		50·3		49·4		51·5		48·9	
	1881	44·1		45·4		46·2		47·7		47·4		49·1		47·2		46·3		47·3		49·4		47·4		49·0		47·9		51·8		47·6	
	1882	46·2		47·3		48·4		49·1		48·7		50·4		48·8		48·2		49·0		50·3		48·7		49·8		49·2		51·7		49·0	
	1883	45·3		46·9		47·4		48·5		48·2		49·7		48·1		47·6		48·3		49·6		48·0		49·4		48·6		51·5		48·4	
	1884	46·6		47·7		48·7		49·8		49·5		51·0		49·3		48·6		49·3		50·7		48·8		50·2		49·5		52·5		49·4	
	1885	44·4		45·9		46·8		47·5		47·3		49·0		47·3		46·4		46·9		48·7		47·2		48·6		47·6		50·7		47·5	
	Means for 10 years, 1876–85	45·4		46·5		47·3		48·4		48·2		49·6		48·0		47·5		48·2		50·2		48·0		49·8		48·7		—		48·4	
	1886	44·3		45·6		46·4		47·5		47·4		49·0		47·2		46·3		47·1		48·8		47·0		48·7		47·6		51·2		47·4	
	1887	45·0		46·2		46·6		47·1		47·0		48·1		47·0		46·8		47·3		48·6		48·0		49·2		48·0		50·9		47·5	
	Means for 22 years, 1866–87	45·7		46·7		47·2		48·4		48·4		49·4		48·0		47·7		48·4		50·5		48·2		49·9		48·9		—		48·5	

TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST YEARS FOR THE TWENTY-TWO YEARS, 1866 TO 1887.

		Wheat Districts.	Grazing, &c. Districts.	Generally.
Rainfall	Driest	Ins. 21·0 in 1887	Ins. 30·5 in 1887	Ins. 25·8 in 1887
	Wettest	40·2 in 1872	58·0 in 1872	49·1 in 1872
Temperature	Coldest	°45·5 in 1879	°46·9 in 1879	°46·2 in 1879
	Warmest	50·1 in 1868	50·7 in 1868	50·4 in 1868

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1.—Rainfall.

The mean values for the Rainfall in the various districts given as Table I. in the various Quarterly Summaries were obtained as follows. Those for the years 1866 to 1877 were derived from observations made at the following stations:—

Districts.		Stations.
0. SCOTLAND, N.		Loch Broom.
		Helmsdale.
		Sandwick Manse.
1. SCOTLAND, E.		Inverness.
		Aberdeen.
		Ballater.
		Logierait.
		Stirling.
		Hawick.
2. ENGLAND, N.E.		N. Shields.
		York.
		Grimsby.
		Boston.
3. ENGLAND, E.	1866 to 1875.	Fakenham.
		Beccles.
		Witham.
		Bury St. Edmunds.
	1876 &1877.	Yarmouth.
		Cambridge.
		Bury St. Edmunds.
4. MIDLAND COUNTIES		Leicester.
		Derby.
		Tenbury.
		Shiffnal.
		Cirencester.
		Banbury.
		Hitchin.
5. ENGLAND, S.		Bridport.
		Selborne.
		Maidstone.
		London (Camden Town).
6. SCOTLAND, W.		Dumfries.
		Ayr.
		Castle Toward.
7. ENGLAND, N.W., and N. WALES		Llandudno.
		Manchester.
		Skipton.
8. ENGLAND, S.W., and S. WALES		Barnstaple.
		Bodmin.
		Haverfordwest.
		Rhayader.
9. IRELAND, N.		Galway.
		Bunninadden, Co. Sligo.
		(Doo Castle.)
		Waringstown.
		Strabane.
10. IRELAND, S.		Cork.
		Waterford.
		Killaloe.
		Portarlington.
		Monkstown, Co. Dublin.

(The values were obtained mainly from Symons' Monthly Meteorological Magazine, supplemented by some of the values contained in the Reports of the Rainfall Committee of the British Association, 1868–1876.)

2.—Temperature.

The Temperature values for the years 1866 to 1877 have been obtained from the following stations:—

Districts.		Stations.
0. SCOTLAND, N.		Sandwick Manse.
		Stornoway.
		Dunrobin.
1. SCOTLAND, E.		Culloden.
		Aberdeen.
		Perth.
		Leith.
2. ENGLAND, N.E.		Bywell.
		N. Shields.
		Hull.
3. ENGLAND, E.		Royston.
		Holkham.
		Norwich.
		Wisbeach.
		Somerleyton.
4. MIDLAND COUNTIES		Derby.
		Nottingham.
		Cardington.
		Oxford.
5. ENGLAND, S.		Marlborough.
		Greenwich.
		Streatley.
		London (Camden Town).
		Weybridge.
		Strathfield Turgiss.
		Osborne.
		Bournemouth.
		Worthing.
6. SCOTLAND, W.		Greenock.
		Cockermouth.
		Silloth.
		Carlisle.
7. ENGLAND, N.W., and N. WALES		Stonyhurst.
		Bradford.
		Leeds.
		Eccles.
		Liverpool.
		Llandudno.
8. ENGLAND, S.W., and S. WALES		Gloucester.
		Taunton.
		Barnstaple.
		Truro.
		Helston.
9. IRELAND, N.	1866 to 1873.	Belfast.
		Milltown (Banbridge).
		Armagh.†
		Athlone.*
	1874 to 1877.	Moville.
		Milltown.
		Armagh.
		Donaghadee.
10 IRELAND, S.	1866 to 1873.	Dublin.*
		Curragh Camp.
		Buttevant.*
		Cork.
		Valencia.†
	1874 to 1877.	Kingstown.
		Parsonstown.
		Cork.
		Roche's Point.
		Valencia.

(The values were obtained mainly from the returns published quarterly by the Registrar General, by the Scottish Meteorological Society (in their Quarterly Journal), and the reports of the Army Medical Department, besides the records of the two Irish observatories, Valencia and Armagh. The returns for Cork were furnished by R. Caulfield, Esq., LL.D.)

For the years 1878 to 1887 the means are obtained from the observations published in the Weekly Weather Report.

* Did not commence till January 1867.

† Did not commence till January 1869.

By Order,
ROBERT H. SCOTT,
Secretary.

WEEKLY WEATHER REPORT, 1887.

VOL. IV. APPENDIX II.] [*Price* 1*s*.

New Series.

TABLE I.—SHOWING THE WEEKLY AND PROGRESSIVE NUMBERS OF RAINY DAYS IN EACH DISTRICT, DURING THE YEAR 1887.

DATE. — LIMITS OF WEEKS.	0. Scotland, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for Grazing, &c. Districts.					
	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.
	Number of Days with Rain.																													
1887.																														
Jan. 4-10	5	5	5	5	7	7	6	6	6	6	5	5	6	6	4	4	6	6	6	6	5	5	5	5	5	5	7	7	6	6
11-17	4	9	4	9	4	11	3	9	3	9	3	8	3	9	4	8	3	9	4	10	4	9	4	9	4	9	5	12	3	9
18-24	6	15	3	12	2	13	2	11	3	12	2	10	2	11	5	13	3	12	4	14	3	12	3	12	3	12	3	15	3	12
Jan. 25-31	5	20	3	15	1	14	1	12	1	13	2	12	2	13	5	18	3	15	3	17	3	15	4	16	4	16	1	16	3	15
Feb. 1-7	6	26	4	19	3	17	3	15	3	16	3	15	3	16	4	22	4	19	3	20	5	20	5	21	4	20	4	20	4	19
8-14	3	29	3	22	2	19	0	15	1	17	1	16	2	18	1	23	1	20	0	20	1	21	0	21	0	20	1	21	1	20
15-21	5	34	3	25	2	21	4	19	3	20	3	19	3	21	5	28	3	23	3	23	5	26	4	25	4	24	4	25	3	23
Feb. 22-28	5	39	2	27	1	22	1	20	1	21	2	21	1	22	3	31	2	25	3	26	3	29	2	27	3	27	2	27	2	25
Mar. 1-7	2	41	0	27	0	22	0	20	0	21	0	21	0	22	1	32	0	25	0	26	1	30	1	28	1	28	0	27	1	26
8-14	5	46	4	31	4	26	2	22	3	24	2	23	3	25	3	35	3	28	3	29	5	35	3	31	3	31	2	29	3	29
15-21	3	49	3	34	4	30	3	25	3	27	3	26	3	28	3	38	2	30	2	31	3	38	4	33	2	33	5	34	2	31
22-28	6	55	5	39	6	36	6	31	5	32	5	31	5	33	6	44	5	35	5	36	5	43	5	38	5	38	5	39	5	36
Mar. 29-April 4	5	60	4	43	2	38	2	33	3	35	3	34	3	36	3	47	3	38	2	38	4	47	2	40	3	41	3	42	3	39
April 5-11	1	61	2	45	3	41	1	34	1	36	1	35	2	38	1	48	1	39	1	39	1	48	1	41	1	42	2	44	2	41
12-18	2	63	0	45	2	43	2	36	0	36	1	36	1	39	1	49	0	39	0	39	0	48	0	41	0	42	0	44	0	41
19-25	6	69	6	51	5	48	5	41	4	40	5	41	5	44	7	56	5	44	5	44	6	54	6	47	6	48	5	49	6	47
April 26-May 2	5	74	3	54	4	52	5	46	4	44	5	46	4	48	4	60	4	48	5	49	4	58	4	51	4	52	6	55	4	51
May 3-9	5	79	3	57	3	55	4	50	3	47	3	49	3	51	3	63	3	51	4	53	2	60	2	53	3	55	4	59	3	54
10-16	3	82	3	60	3	58	3	53	2	49	2	51	3	54	2	65	2	53	0	53	2	62	0	53	1	56	1	60	2	56
17-23	5	87	5	65	5	63	5	58	6	55	6	57	5	59	5	70	5	58	6	59	6	68	6	59	6	62	6	66	6	62
24-30	1	88	3	68	4	67	5	63	5	60	4	61	4	63	1	71	1	59	3	62	1	69	1	60	1	63	4	70	2	64
May 31-June 6	3	91	2	70	2	69	3	66	4	64	3	64	3	66	3	74	3	62	4	66	3	72	4	64	4	67	5	75	4	68
June 7-13	7	98	3	73	1	70	1	67	1	65	0	64	1	67	4	78	2	64	1	67	2	74	1	65	2	69	1	76	1	69
14-20	2	100	1	74	0	70	0	67	0	65	0	64	0	67	1	79	0	64	0	67	0	74	0	65	0	69	0	76	0	69
21-27	1	101	0	74	0	70	0	67	0	65	0	64	0	67	0	79	0	64	0	67	0	74	0	65	0	69	0	76	0	69
June 28-July 4	4	105	1	75	1	71	1	68	1	66	1	65	1	68	2	81	1	65	0	67	2	76	1	66	1	70	1	77	1	70
July 5-11	5	110	6	81	3	74	2	70	2	68	2	67	3	71	5	86	4	69	3	70	5	81	4	70	4	74	3	80	4	74
12-18	4	114	4	85	3	77	3	73	3	71	2	69	3	74	3	89	3	72	3	73	5	86	3	73	4	78	2	82	3	77
19-25	5	119	3	88	2	79	1	74	1	72	1	70	2	76	5	94	2	74	2	75	4	90	3	76	3	81	2	84	3	80
July 26-Aug. 1	6	125	5	93	4	83	3	77	2	74	2	72	3	79	5	99	3	77	3	78	5	95	5	81	4	85	2	86	3	83
Aug. 2-8	4	129	2	95	1	84	0	77	0	74	0	72	1	80	3	102	1	78	0	78	3	98	1	82	2	87	0	86	2	85
9-15	6	135	3	98	2	86	2	79	2	76	1	73	2	82	2	104	2	80	1	79	4	102	2	84	2	89	1	87	2	87
16-22	5	140	5	103	4	90	4	83	3	79	4	77	4	86	3	107	4	84	3	82	4	106	4	88	4	93	4	91	4	91
23-29	4	144	3	106	3	93	4	87	3	82	3	80	3	89	4	111	3	87	3	85	6	112	6	94	4	97	5	96	3	94
Aug. 30-Sept. 5	6	150	7	113	7	100	7	94	7	89	7	87	7	96	7	118	7	94	7	92	7	119	7	101	7	104	6	102	7	101
Sept. 6-12	6	156	6	119	6	106	4	98	4	93	5	92	5	101	5	123	6	100	4	96	5	124	5	106	5	109	5	107	5	106
13-19	5	161	4	123	4	110	5	103	3	96	4	96	4	105	3	126	3	103	4	100	2	126	1	107	2	111	3	110	3	109
20-26	3	164	2	125	1	111	2	105	1	97	1	97	1	106	2	128	2	105	1	101	2	128	2	109	2	113	2	112	1	110
Sept. 27-Oct. 3	4	168	3	128	4	115	5	110	4	101	3	100	4	110	2	130	3	108	3	104	3	131	3	112	3	116	5	117	4	114
Oct. 4-10	6	174	4	132	4	119	3	113	3	104	2	102	3	113	3	133	4	112	2	106	3	134	1	113	3	119	4	121	3	117
11-17	6	180	3	135	5	124	5	118	2	106	3	105	4	117	2	135	3	115	4	110	4	138	1	114	2	121	4	125	3	120
18-24	6	186	3	138	3	127	2	120	1	107	1	106	2	119	2	137	2	117	1	111	2	140	1	115	2	123	1	126	2	122
Oct. 25-31	6	192	4	142	4	131	4	124	5	112	4	110	4	123	6	143	6	123	6	117	6	146	5	120	6	129	6	132	5	127
Nov. 1-7	6	198	6	148	7	138	7	131	6	118	7	117	7	130	7	150	7	130	7	124	7	153	7	127	7	136	7	139	7	134
8-14	3	201	4	152	6	144	5	136	4	122	5	122	5	135	1	151	2	132	4	128	1	154	2	129	2	138	5	144	3	137
15-21	5	206	4	156	3	147	3	139	2	124	4	126	3	138	3	154	2	134	3	131	4	158	4	133	3	141	5	149	3	140
22-28	5	211	6	162	3	150	4	143	4	128	5	131	4	142	5	159	5	139	5	136	5	163	4	137	5	146	5	154	5	145
Nov. 29-Dec. 5	6	217	3	165	3	153	3	146	3	131	2	133	3	145	6	165	5	144	5	141	5	168	5	142	5	151	5	159	4	149
Dec. 6-12	6	223	5	170	3	156	4	150	6	137	6	139	5	150	6	171	6	150	6	147	6	174	6	148	6	157	7	166	5	154
13-19	6	229	5	175	5	161	6	156	6	143	6	145	5	155	6	177	7	157	7	154	7	181	6	154	7	164	7	173	6	160
20-26	6	235	4	179	7	168	5	161	2	145	2	147	4	159	2	179	3	160	3	157	5	186	2	156	3	167	5	178	4	164
Dec. 27-Jan. 2, 1888	6	241	4	183	6	174	5	166	3	148	3	150	4	163	2	181	3	163	2	159	2	188	3	159	2	169	3	181	3	167

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TABLE II.—SHOWING THE WEEKLY AND PROGRESSIVE AMOUNTS OF RAINFALL IN EACH DISTRICT, DURING THE YEAR 1887.

DATE. — LIMITS OF WEEKS.	Principal Wheat-producing Districts.														Principal Grazing, &c. Districts.												Means for the British Islands generally.	
	0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for Grazing, &c. Districts.		Channel Islands.			
	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.
	Rainfall in Inches.																											
1887.																												
Jan. 4-10	1·13	1·13	0·77	0·77	1·05	1·05	0·78	0·78	1·10	1·10	0·85	0·85	0·91	0·91	1·16	1·16	0·87	0·87	1·34	1·34	1·17	1·17	1·52	1·52	1·21	1·21	1·25	1·25	1·06	1·06
11-17	0·80	1·93	0·70	1·47	0·28	1·33	0·34	1·12	0·36	1·46	0·47	1·32	0·43	1·34	0·88	2·04	0·48	1·35	0·68	2·02	0·43	1·60	0·61	2·13	0·62	1·83	0·57	1·82	0·53	1·59
18-24	1·87	3·80	0·36	1·83	0·09	1·42	0·23	1·35	0·29	1·75	0·34	1·66	0·26	1·60	1·11	3·15	0·48	1·83	0·49	2·51	0·52	2·12	0·55	2·68	0·63	2·46	0·38	2·20	0·44	2·03
Jan. 25-31	1·56	5·36	0·31	2·14	0·06	1·48	0·04	1·39	0·16	1·91	0·07	1·73	0·13	1·73	1·06	4·21	0·66	2·49	0·34	2·85	0·50	2·62	1·24	3·92	0·76	3·22	0·15	2·35	0·45	2·48
Feb. 1-7	1·51	6·87	0·86	3·00	0·23	1·71	0·35	1·74	0·33	2·24	0·34	2·07	0·42	2·15	1·59	5·80	0·40	2·89	0·39	3·24	1·39	4·01	0·90	4·82	0·94	4·16	0·26	2·61	0·68	3·16
8-14	0·14	7·01	0·12	3·12	0·10	1·81	0·00	1·74	0·02	2·26	0·01	2·08	0·05	2·20	0·02	5·82	0·02	2·91	0·00	3·24	0·02	4·03	0·01	4·83	0·01	4·17	0·11	2·72	0·03	3·19
15-21	0·83	7·84	0·08	3·20	0·14	1·95	0·30	2·04	0·15	2·41	0·31	2·39	0·20	2·40	0·74	6·56	0·25	3·16	0·22	3·46	0·45	4·48	0·32	5·15	0·40	4·57	0·32	3·04	0·30	3·49
Feb. 22-28	1·81	9·65	0·31	3·51	0·04	1·99	0·02	2·06	0·04	2·45	0·05	2·44	0·09	2·49	1·21	7·77	0·51	3·67	0·21	3·67	0·89	5·37	0·55	5·70	0·67	5·24	0·06	3·10	0·38	3·87
Mar. 1-7	0·06	9·71	0·01	3·52	0·00	1·99	0·01	2·07	0·01	2·46	0·01	2·45	0·01	2·50	0·03	7·80	0·01	3·68	0·00	3·67	0·03	5·40	0·05	5·75	0·02	5·26	0·02	3·12	0·02	3·89
8-14	0·41	10·12	0·80	4·32	0·64	2·63	0·32	2·39	0·37	2·83	0·46	2·91	0·52	3·02	0·46	8·26	0·54	4·22	0·46	4·13	0·41	5·81	0·46	6·21	0·47	5·73	0·15	3·27	0·50	4·39
15-21	0·13	10·25	0·23	4·55	0·30	2·93	0·20	2·59	0·23	3·06	0·34	3·25	0·26	3·28	0·22	8·48	0·16	4·38	0·42	4·55	0·19	6·00	0·35	6·56	0·27	6·00	0·36	3·63	0·26	4·65
22-28	1·09	11·34	0·46	5·01	0·59	3·52	0·76	3·35	0·76	3·82	0·59	3·84	0·63	3·91	1·17	9·65	1·18	5·56	0·85	5·40	0·89	6·89	0·81	7·37	0·98	6·98	0·49	4·12	0·81	5·46
Mar. 29-April 4	0·77	12·11	0·32	5·33	0·27	3·79	0·40	3·75	0·26	4·08	0·30	4·14	0·31	4·22	0·40	10·05	0·33	5·89	0·13	5·53	0·41	7·30	0·20	7·57	0·29	7·27	0·13	4·25	0·30	5·76
April 5-11	0·08	12·19	0·09	5·42	0·09	3·88	0·03	3·78	0·03	4·11	0·20	4·34	0·09	4·31	0·04	10·09	0·03	5·92	0·03	5·56	0·04	7·34	0·10	7·67	0·05	7·32	0·24	4·49	0·07	5·83
12-18	0·23	12·42	0·01	5·43	0·07	3·95	0·06	3·84	0·00	4·11	0·02	4·36	0·03	4·34	0·01	10·10	0·01	5·93	0·00	5·56	0·01	7·35	0·00	7·67	0·01	7·33	0·00	4·49	0·02	5·85
19-25	1·49	13·91	0·88	6·31	0·36	4·31	0·48	4·32	0·35	4·46	0·54	4·90	0·52	4·86	2·04	12·14	0·67	6·60	0·70	6·26	1·33	8·68	1·09	8·76	1·16	8·49	0·86	5·35	0·84	6·69
April 26-May 2	0·42	14·33	0·36	6·67	0·40	4·71	0·58	4·90	0·81	5·27	0·76	5·66	0·58	5·44	0·43	12·57	0·49	7·09	0·98	7·24	0·34	9·02	0·33	9·09	0·51	9·00	0·73	6·08	0·55	7·24
May 3-9	0·57	14·90	0·09	6·76	0·09	4·80	0·65	5·55	0·21	5·48	0·31	5·97	0·27	5·71	0·15	12·72	0·11	7·20	0·23	7·47	0·20	9·22	0·18	9·27	0·17	9·17	0·27	6·35	0·22	7·46
10-16	0·17	15·07	0·26	7·02	0·13	4·93	0·26	5·81	0·10	5·58	0·15	6·12	0·18	5·89	0·31	13·03	0·27	7·47	0·02	7·49	0·25	9·47	0·00	9·27	0·17	9·34	0·06	6·41	0·18	7·64
17-23	0·87	15·94	0·84	7·86	0·93	5·86	0·68	6·49	0·66	6·24	0·58	6·70	0·74	6·63	1·28	14·31	1·27	8·74	0·76	8·25	1·35	10·82	0·80	10·07	1·09	10·43	0·51	6·92	0·91	8·55
24-30	0·03	15·97	0·25	8·11	0·43	6·29	0·30	6·79	0·31	6·55	0·18	6·88	0·29	6·92	0·02	14·33	0·09	8·83	0·16	8·41	0·01	10·83	0·06	10·13	0·07	10·50	0·45	7·37	0·18	8·73
May 31-June 6	0·19	16·16	0·26	8·37	0·17	6·46	0·41	7·20	1·32	7·87	1·06	7·94	0·64	7·56	0·47	14·80	0·75	9·58	0·49	8·90	0·40	11·23	0·49	10·62	0·52	11·02	0·57	7·94	0·58	9·31
June 7-13	1·65	17·81	0·23	8·60	0·03	6·49	0·02	7·22	0·04	7·91	0·01	7·95	0·06	7·62	0·71	15·51	0·06	9·64	0·07	8·97	0·21	11·44	0·12	10·74	0·24	11·26	0·01	7·95	0·15	9·46
14-20	0·12	17·93	0·13	8·73	0·00	6·49	0·00	7·22	0·00	7·91	0·00	7·95	0·03	7·65	0·05	15·56	0·00	9·64	0·00	8·97	0·02	11·46	0·00	10·74	0·01	11·27	0·00	7·95	0·02	9·48
21-27	0·02	17·95	0·00	8·73	0·00	6·49	0·00	7·22	0·00	7·91	0·00	7·95	0·00	7·65	0·00	15·56	0·00	9·64	0·00	8·97	0·00	11·46	0·00	10·74	0·00	11·27	0·01	7·96	0·00	9·48
June 28-July 4	0·33	18·28	0·29	9·02	0·32	6·81	0·12	7·34	0·18	8·09	0·02	7·97	0·19	7·84	0·27	15·83	0·04	9·68	0·02	8·99	0·38	11·84	0·15	10·89	0·17	11·44	0·04	8·00	0·18	9·66
July 5-11	1·14	19·42	0·68	9·70	0·20	7·01	0·12	7·46	0·11	8·20	0·07	8·04	0·24	8·08	1·12	16·95	0·47	10·15	0·44	9·43	0·78	12·62	0·59	11·48	0·68	12·12	0·17	8·17	0·46	10·12
12-18	0·72	20·14	0·31	10·01	0·13	7·14	0·61	8·07	0·31	8·51	0·38	8·42	0·35	8·43	0·59	17·54	0·37	10·52	0·45	9·88	0·69	13·31	0·50	11·98	0·52	12·64	0·21	8·38	0·43	10·55
19-25	1·04	21·18	0·29	10·30	0·12	7·26	0·17	8·24	0·21	8·72	0·11	8·53	0·18	8·61	0·70	18·24	0·20	10·72	0·32	10·20	0·52	13·83	0·25	12·23	0·40	13·04	0·07	8·45	0·29	10·84
July 26-Aug. 1	0·98	22·16	0·71	11·01	0·44	7·70	0·43	8·67	0·40	9·12	0·30	8·83	0·45	9·06	1·13	19·37	0·56	11·28	0·72	10·92	0·99	14·82	0·79	13·02	0·84	13·88	0·38	8·83	0·65	11·49
Aug. 2-8	1·01	23·17	0·47	11·48	0·03	7·73	0·00	8·67	0·00	9·12	0·00	8·83	0·10	9·16	0·73	20·10	0·01	11·29	0·01	10·93	1·04	15·86	0·11	13·13	0·38	14·26	0·52	9·35	0·24	11·73
9-15	0·33	23·50	0·13	11·61	0·22	7·95	0·31	8·98	0·16	9·28	0·04	8·87	0·17	9·33	0·22	20·32	0·28	11·57	0·04	10·97	0·41	16·27	0·11	13·24	0·21	14·47	0·28	9·63	0·19	11·92
16-22	0·58	24·08	0·65	12·26	0·64	8·59	0·53	9·51	0·64	9·92	0·85	9·72	0·66	9·99	0·44	20·76	0·41	11·98	0·37	11·34	0·48	16·75	0·64	13·88	0·47	14·94	0·57	10·20	0·37	12·49
23-29	0·49	24·57	0·54	12·80	0·40	8·99	0·39	9·90	0·40	10·32	0·51	10·23	0·45	10·44	0·87	21·63	0·60	12·58	0·54	11·88	0·97	17·72	1·79	15·67	0·95	15·89	1·04	11·24	0·70	13·19
Aug. 30-Sept. 5	1·62	26·19	2·05	14·85	0·92	9·91	1·06	10·96	1·72	12·04	2·00	12·23	1·55	11·99	2·47	24·10	1·90	14·48	2·10	13·98	2·78	23·50	1·99	17·66	2·25	18·14	1·45	12·69	1·90	15·09
Sept. 6-12	1·31	27·50	0·70	15·55	1·46	11·37	0·39	11·35	0·39	12·43	0·39	12·62	0·66	12·65	1·35	25·45	0·86	15·34	0·61	14·59	0·68	21·18	0·42	18·08	0·78	18·92	0·27	12·96	0·72	15·81
13-19	0·43	27·93	0·55	16·10	0·82	12·19	0·59	11·94	0·45	12·88	0·67	13·29	0·62	13·27	0·55	26·00	0·62	15·96	0·85	15·44	0·15	21·33	0·05	18·13	0·44	19·36	0·21	13·17	0·53	16·34
20-26	0·41	28·34	0·16	16·26	0·03	12·22	0·14	12·08	0·09	12·97	0·27	13·56	0·14	13·41	0·36	26·36	0·37	16·33	0·29	15·73	0·49	21·82	0·19	18·32	0·34	19·70	0·18	13·35	0·24	16·58
Sept. 27-Oct. 3	0·22	28·56	0·40	16·66	0·69	12·91	0·61	12·69	0·34	13·31	0·18	13·74	0·44	13·85	0·28	26·64	0·43	16·76	0·54	16·27	0·51	22·33	0·42	18·74	0·44	20·14	0·83	14·18	0·44	17·02
Oct. 4-10	1·01	29·57	1·03	17·69	1·11	14·02	0·50	13·19	0·43	13·74	0·21	13·95	0·66	14·51	0·49	27·13	0·92	17·68	0·25	16·52	0·37	22·70	0·11	18·85	0·43	20·57	0·32	14·50	0·55	17·57
11-17	0·57	30·14	0·40	18·09	0·85	14·87	0·59	13·78	0·09	13·83	0·10	14·05	0·40	14·91	0·16	27·29	0·18	17·86	0·65	17·17	0·39	23·09	0·15	19·00	0·31	20·88	0·83	15·33	0·35	17·92
18-24	1·17	31·31	0·24	18·33	0·39	15·26	0·30	14·08	0·12	13·95	0·04	14·09	0·22	15·13	0·36	27·65	0·14	18·00	0·05	17·22	0·19	23·28	0·03	19·03	0·15	21·03	0·03	15·36	0·18	18·10
Oct. 25-31	1·32	32·63	0·34	18·67	0·36	15·62	0·90	14·98	1·36	15·31	1·21	15·30	0·83	15·96	1·90	29·55	1·25	19·25	2·66	19·88	1·67	24·95	2·33	21·36	1·96	22·99	2·32	17·68	1·40	19·50
Nov. 1-7	1·10	33·73	1·95	20·62	1·34	16·96	1·30	16·28	1·26	16·57	2·18	17·48	1·61	17·57	1·65	31·20	1·28	20·53	2·38	22·26	2·05	27·00	1·57	22·93	1·78	24·77	1·74	19·42	1·70	21·20
8-14	0·11	33·84	0·39	21·01	0·59	17·55	0·59	16·87	0·36	16·93	0·52	18·00	0·49	18·06	0·03	31·23	0·04	20·57	0·37	22·63	0·11	27·11	0·13	23·06	0·14	24·91	0·97	20·39	0·32	21·52
15-21	0·82	34·66	0·35	21·36	0·17	17·72	0·21	17·08	0·15	17·08	0·50	18·50	0·28	18·34	0·50	31·73	0·07	20·64	0·70	23·33	0·43	27·54	0·84	23·90	0·51	25·42	1·03	21·42	0·39	21·91
22-28	1·37	36·03	0·64	22·00	0·27	17·99	0·35	17·43	0·23	17·31	0·73	19·23	0·44	18·78	1·52	33·25	0·77	21·41	0·58	23·91	0·71	28·25	0·61	24·51	0·84	26·26	0·57	21·99	0·64	22·55
Nov. 29-Dec. 5	1·57	37·60	0·32	22·32	0·35	18·34	0·20	17·63	0·18	17·49	0·17	19·40	0·24	19·02	1·24	34·49	0·57	21·98	0·41	24·32	0·74	28·99	0·73	25·24	0·74	27·00	0·48	22·47	0·49	23·04
Dec. 6-12	1·26	38·86	0·74	23·06	0·42	18·76	0·39	18·02	0·69	18·18	1·06	20·46	0·66	19·68	1·99	36·48	1·18	23·16	1·78	26·10	1·21	30·20	1·46	26·70	1·52	28·52	1·31	23·78	1·09	24·13
13-19	1·70	40·56	0·76	23·82	0·48	19·24	0·48	18·50	0·76	18·94	0·69	21·15	0·64	20·32	2·03	38·51	1·23	24·39	1·66	27·76	1·57	31·77	1·11	27·81	1·52	30·04	1·46	25·24	1·08	25·21
20-26	0·58	41·14	0·38	24·20	0·92	20·16	0·26	18·76	0·06	19·00	0·10	21·25	0·34	20·66	0·18	38·69	0·15	24·54	0·13	27·89	0·25	32·02	0·09	27·90	0·16	30·20	0·47	25·71	0·25	25·46
Dec. 27-Jan. 2, 1888	0·40	41·54	0·23	24·43	0·42	20·58	0·22	18·98	0·24	19·24	0·29	21·54	0·28	20·94	0·30	38·99	0·32	24·86	0·41	28·30	0·28	32·30	0·57	28·47	0·38	30·58	0·32	26·03	0·33	25·79

TABLE III.—SHOWING THE WEEKLY AND PROGRESSIVE VALUES OF ACCUMULATED HEAT ABOVE 42° F. IN EACH DISTRICT, DURING THE YEAR 1887.

DATE. — LIMITS OF WEEKS.	0. Scotland, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for Grazing, &c. Districts.					
	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.
	Day-Degrees above 42° Fahrenheit.																													
1887.																														
Jan. 4-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	0	0
11-17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	9	9	2	2	5	15	1	1
18-24	12	12	13	13	6	6	2	2	5	5	6	6	6	6	19	19	8	8	21	22	26	27	30	39	21	23	20	35	13	14
Jan. 25-31	26	38	32	45	28	34	15	17	32	37	27	33	27	33	30	49	27	35	29	51	36	63	45	84	33	56	27	62	30	44
Feb. 1-7	4	42	10	55	14	48	18	35	17	54	25	58	17	50	8	57	13	48	26	77	16	79	31	115	19	75	29	91	18	62
8-14	4	46	2	57	0	48	0	35	0	54	0	58	0	50	0	57	0	48	0	77	2	81	3	118	1	76	0	91	0	62
15-21	8	54	10	67	6	54	2	37	5	59	4	62	5	55	8	65	3	51	8	85	21	102	27	145	14	90	8	99	10	72
Feb. 22-28	27	81	36	103	38	92	23	60	40	99	31	93	34	89	25	90	32	83	30	115	36	138	49	185	32	122	29	128	33	105
Mar. 1-7	25	106	35	138	13	105	6	66	6	105	8	101	14	103	22	112	10	93	17	132	27	165	30	215	21	143	23	151	18	123
8-14	0	106	0	138	0	105	1	67	2	107	3	104	1	104	0	112	0	93	4	136	5	170	9	224	4	147	6	157	2	125
15-21	3	109	3	141	0	105	0	67	0	107	0	104	0	104	0	112	0	93	0	136	6	176	5	229	2	149	0	157	1	126
22-28	11	120	17	158	26	131	37	104	32	139	38	142	30	134	22	134	21	114	31	167	27	203	32	261	27	176	28	185	28	154
Mar. 29-April 4	15	135	33	191	32	163	35	139	37	176	37	179	35	169	28	162	23	137	38	205	34	237	38	299	32	208	30	215	34	188
April 5-11	14	149	18	209	11	174	15	154	22	198	29	208	19	188	21	183	19	156	32	237	19	256	22	321	23	231	24	239	21	209
12-18	20	169	38	247	20	194	26	180	32	230	28	236	29	217	36	219	23	179	38	275	44	300	47	368	38	269	31	270	34	243
19-25	27	196	35	282	42	236	54	234	49	279	48	284	45	262	30	249	31	210	39	314	33	333	38	406	34	303	42	312	39	282
April 26-May 2	17	213	23	305	23	259	33	267	26	305	33	317	28	290	22	271	28	238	32	346	32	365	37	443	30	333	34	346	29	311
May 3-9	38	251	50	355	40	299	50	317	50	355	60	377	50	340	48	319	42	280	46	392	53	418	57	500	49	382	53	399	50	361
10-16	43	294	55	410	43	342	45	362	53	408	59	436	51	391	63	382	48	328	66	458	61	479	75	575	63	445	61	460	57	418
17-23	29	323	48	458	39	381	42	404	46	454	45	481	44	435	39	421	37	365	48	506	38	517	49	624	42	487	57	517	43	461
24-30	54	377	62	520	32	413	53	457	50	504	67	548	53	488	81	502	64	429	75	581	77	594	87	711	77	564	72	589	65	526
May 31-June 6	59	436	65	585	64	477	92	549	82	586	90	638	79	567	76	578	78	507	90	671	92	686	90	801	85	649	95	684	82	608
June 7-13	70	506	101	686	116	593	123	672	121	707	111	749	114	681	90	668	104	611	107	778	108	794	113	914	105	754	113	797	110	718
14-20	102	608	120	806	126	719	131	803	148	855	150	899	135	816	121	789	141	752	159	937	143	937	151	1065	143	897	158	955	139	857
21-27	100	708	118	924	97	816	99	902	123	978	112	1011	110	926	133	922	131	883	133	1070	146	1083	159	1224	140	1037	115	1070	125	982
June 28-July 4	111	819	141	1065	151	967	153	1055	158	1136	151	1162	151	1077	124	1046	139	1022	144	1214	135	1218	151	1375	139	1176	148	1218	145	1127
July 5-11	83	902	116	1181	134	1101	158	1213	152	1288	152	1314	142	1219	120	1166	135	1157	144	1358	130	1348	146	1521	135	1311	154	1372	139	1266
12-18	88	990	115	1296	132	1233	146	1359	134	1422	141	1455	134	1353	113	1279	126	1283	130	1488	119	1467	130	1651	125	1436	147	1519	130	1396
19-25	90	1080	125	1421	136	1369	140	1499	148	1570	148	1603	139	1492	116	1395	132	1415	146	1634	125	1592	144	1795	132	1568	148	1667	135	1531
July 26-Aug. 1	94	1174	110	1531	130	1499	147	1646	135	1705	143	1746	133	1625	105	1500	125	1540	126	1760	109	1701	123	1918	117	1685	146	1813	125	1656
Aug. 2-8	104	1278	120	1651	133	1632	139	1785	141	1846	148	1894	136	1761	112	1612	137	1677	138	1898	125	1826	143	2061	131	1816	160	1973	134	1790
9-15	52	1330	78	1729	84	1716	113	1898	99	1945	132	2026	101	1862	81	1693	91	1768	114	2012	85	1911	104	2165	95	1911	132	2105	98	1888
16-22	61	1391	74	1803	88	1804	99	1997	96	2041	110	2136	94	1956	77	1770	92	1860	109	2121	91	2002	101	2266	94	2005	132	2237	94	1982
23-29	113	1504	129	1932	135	1939	151	2148	146	2187	149	2285	142	2098	122	1892	143	2003	141	2262	136	2138	143	2409	137	2142	148	2385	139	2121
Aug. 30-Sept. 5	78	1582	98	2030	116	2055	129	2277	116	2303	130	2415	118	2216	97	1989	111	2114	114	2376	96	2234	108	2517	105	2247	134	2519	112	2233
Sept. 6-12	47	1629	64	2094	76	2131	95	2372	83	2386	98	2513	83	2299	69	2058	83	2197	94	2470	76	2310	91	2608	83	2330	121	2640	83	2316
13-19	50	1679	60	2154	59	2190	73	2445	67	2453	84	2597	69	2368	61	2119	67	2264	82	2552	71	2381	83	2691	73	2403	109	2749	71	2387
20-26	56	1735	74	2228	64	2254	71	2516	65	2518	77	2674	70	2438	71	2190	76	2340	78	2630	71	2452	79	2770	75	2478	104	2853	72	2459
Sept. 27-Oct. 3	42	1777	48	2276	50	2304	46	2562	49	2567	55	2729	49	2487	51	2241	54	2394	53	2683	54	2506	55	2825	53	2531	78	2931	51	2510
Oct. 4-10	27	1804	39	2315	39	2343	60	2622	40	2607	65	2794	49	2536	37	2278	44	2438	55	2738	43	2549	50	2875	46	2577	76	3007	47	2557
11-17	13	1817	17	2332	16	2359	19	2641	22	2629	24	2818	19	2555	20	2298	26	2464	36	2774	27	2576	33	2908	28	2605	44	3051	24	2581
18-24	23	1840	31	2363	29	2388	33	2674	38	2667	41	2859	34	2589	33	2331	31	2495	40	2814	32	2608	42	2950	36	2641	52	3103	35	2616
Oct. 25-31	23	1863	34	2397	26	2414	32	2706	35	2702	37	2896	33	2622	30	2361	26	2521	35	2849	28	2636	39	2989	31	2672	44	3147	32	2648
Nov. 1-7	21	1884	23	2420	24	2438	35	2741	33	2735	36	2932	30	2652	25	2386	25	2546	33	2882	27	2663	29	3018	28	2700	54	3201	29	2677
8-14	2	1886	2	2422	12	2450	16	2757	13	2748	18	2950	12	2664	9	2395	12	2558	20	2902	17	2680	23	3041	16	2716	36	3237	14	2691
15-21	7	1893	2	2424	0	2450	0	2757	0	2748	0	2950	1	2665	3	2398	0	2558	3	2905	3	2683	7	3048	3	2719	18	3255	2	2693
22-28	6	1899	6	2430	10	2460	12	2769	11	2759	22	2972	12	2677	9	2407	11	2569	22	2927	12	2695	16	3064	14	2733	30	3285	13	2706
Nov. 29-Dec. 5	11	1910	13	2443	11	2471	10	2779	14	2773	23	2995	14	2691	24	2431	19	2588	26	2953	24	2719	25	3089	24	2757	30	3315	19	2725
Dec. 6-12	0	1910	0	2443	0	2471	1	2780	5	2778	14	3009	4	2695	1	2432	2	2590	28	2981	4	2723	16	3105	10	2767	33	3348	7	2732
13-19	0	1910	0	2443	4	2475	10	2790	9	2787	24	3033	10	2705	7	2439	7	2597	25	3006	8	2731	21	3126	14	2781	36	3384	12	2744
20-26	0	1910	0	2443	0	2475	0	2790	0	2787	0	3033	0	2705	0	2439	0	2597	0	3006	1	2732	0	3126	0	2781	7	3391	0	2744
Dec. 27-Jan. 2, 1888	0	1910	0	2443	0	2475	0	2790	0	2787	0	3033	0	2705	0	2439	0	2597	0	3006	0	2732	0	3126	0	2781	2	3393	0	2744

TABLE IV.—SHOWING THE WEEKLY AND PROGRESSIVE VALUES OF ACCUMULATED HEAT BELOW 42° F. IN EACH DISTRICT, DURING THE YEAR 1887.

DATE. — LIMITS OF WEEKS.	Principal Wheat-producing Districts.														Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
	0. Scotland, N.		1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for Grazing, &c. Districts.					
	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.
	Day-Degrees below 42° Fahrenheit.																													
1887.																														
Jan. 4-10	64	64	74	74	70	70	74	74	78	78	53	53	70	70	77	77	69	69	36	36	60	60	36	36	56	56	21	21	63	63
11-17	41	105	60	134	64	134	76	150	81	159	62	115	68	138	43	120	57	126	38	74	39	99	37	73	43	99	20	41	56	119
18-24	24	129	29	163	28	162	33	183	32	191	29	144	30	168	9	129	19	145	13	87	10	109	8	81	12	111	6	47	21	140
Jan. 25-31	5	134	1	164	11	173	32	215	14	205	16	160	15	183	0	129	4	149	2	89	0	109	0	81	1	112	0	47	8	148
Feb. 1-7	33	167	35	199	30	203	29	244	32	237	14	174	28	211	22	151	26	175	7	96	27	136	10	91	18	130	0	47	23	171
8-14	27	194	45	244	53	256	54	298	57	294	53	227	53	264	37	188	55	230	50	146	36	172	39	130	44	174	36	83	49	220
15-21	25	219	28	272	31	287	44	342	40	334	38	265	36	300	19	207	27	257	35	181	13	185	15	145	22	196	16	99	22	249
Feb. 22-28	6	225	9	281	13	300	35	377	22	356	17	282	19	319	5	212	9	266	9	190	3	188	0	145	5	201	0	99	12	261
Mar. 1-7	10	235	22	303	35	335	46	423	47	403	43	325	39	358	14	226	31	297	33	223	9	197	12	157	20	221	10	109	30	291
8-14	74	309	57	360	47	382	45	468	41	444	36	361	45	403	53	279	39	336	36	259	34	231	34	191	39	260	17	126	42	333
15-21	45	354	53	413	57	439	71	539	71	515	63	424	63	466	44	323	57	393	59	318	42	273	48	239	50	310	36	162	56	389
22-28	24	378	29	442	16	455	16	555	13	528	11	435	17	483	13	336	11	404	7	325	13	286	8	247	10	320	0	162	13	402
Mar. 29-April 4	18	396	11	453	12	467	19	574	19	547	18	453	16	499	11	347	11	415	16	341	6	292	10	257	11	331	1	163	14	416
April 5-11	42	438	39	492	24	491	23	597	30	577	15	468	26	525	37	384	31	446	17	358	36	328	31	288	36	362	4	167	29	445
12-18	42	480	23	515	34	525	39	636	42	619	37	505	35	560	21	405	31	477	22	380	17	345	21	309	22	384	3	170	28	473
19-25	13	493	13	528	6	531	6	642	10	629	5	510	8	568	3	408	3	480	8	388	4	349	4	313	4	388	0	170	6	479
April 26-May 2	32	525	35	563	29	560	22	664	35	664	14	524	27	595	31	439	17	497	17	405	21	370	23	336	22	410	0	170	25	504
May 3-9	7	532	11	574	2	562	1	665	2	666	0	524	3	598	1	440	2	499	0	405	0	370	0	336	1	411	0	170	2	506
10-16	2	534	0	574	0	562	2	667	0	666	0	524	0	598	0	440	0	499	0	405	0	370	0	336	0	411	0	170	0	506
17-23	13	547	10	584	2	564	8	675	4	670	0	524	5	603	5	445	2	501	0	405	3	373	0	336	2	413	0	170	4	510
24-30	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
May 31-June 6	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
June 7-13	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
14-20	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
21-27	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
June 28-July 4	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
July 5-11	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
12-18	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
19-25	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
July 26-Aug. 1	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
Aug. 2-8	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
9-15	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
16-22	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
23-29	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
Aug. 30-Sept. 5	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
Sept. 6-12	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
13-19	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
20-26	0	547	0	584	0	564	0	675	0	670	0	524	0	603	0	445	0	501	0	405	0	373	0	336	0	413	0	170	0	510
Sept. 27-Oct. 3	0	547	2	586	0	564	1	676	5	675	0	524	2	605	0	445	0	501	0	405	0	373	0	336	0	413	0	170	1	511
Oct. 4-10	6	553	6	592	0	564	0	676	0	675	0	524	1	606	3	448	0	501	0	405	0	373	0	336	1	414	0	170	1	512
11-17	29	582	31	623	26	590	33	709	38	713	37	561	33	639	33	481	16	517	20	425	8	381	13	349	18	432	0	170	26	538
18-24	10	592	12	635	10	600	19	728	20	733	17	578	16	655	6	487	3	520	5	430	0	381	2	351	3	435	0	170	9	547
Oct. 25-31	13	605	17	652	13	613	17	745	20	753	15	593	16	671	12	499	7	527	9	439	9	390	8	359	9	444	0	170	13	560
Nov. 1-7	7	612	12	664	6	619	8	753	10	763	1	594	8	679	6	505	3	530	1	440	7	397	4	363	4	448	0	170	6	566
8-14	22	634	21	685	4	623	3	756	6	769	2	596	7	686	18	523	4	534	6	446	9	406	10	373	10	458	0	170	9	575
15-21	30	664	35	720	45	668	65	821	67	836	48	644	52	738	38	561	46	580	38	484	34	440	38	411	39	497	9	179	45	620
22-28	34	698	32	752	23	691	28	849	30	866	13	657	25	763	25	586	21	601	14	498	25	465	26	437	22	519	0	179	24	644
Nov. 29-Dec. 5	24	722	27	779	21	712	25	874	28	894	9	666	22	785	11	597	10	611	9	507	12	477	10	447	10	529	0	179	16	660
Dec. 6-12	71	793	61	840	46	758	42	916	41	935	33	699	45	830	41	638	33	644	14	521	36	513	28	475	31	560	0	179	38	698
13-19	39	832	33	873	34	792	33	949	31	966	13	712	29	859	30	668	24	668	9	530	27	540	11	486	29	580	0	179	24	722
20-26	55	887	55	928	53	845	62	1011	59	1025	57	769	57	916	48	716	43	711	41	571	30	570	34	520	39	619	16	195	48	770
Dec. 27-Jan. 2, 1888	51	938	64	992	54	899	70	1081	70	1095	67	836	65	981	48	764	52	763	51	622	46	616	46	566	49	668	29	224	57	837

TABLE V.—SHOWING THE WEEKLY AND PROGRESSIVE NUMBERS OF HOURS OF BRIGHT SUNSHINE IN EACH DISTRICT, REGISTERED DURING THE YEAR 1887.

DATE. — LIMITS OF WEEKS.	0. Scotland, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat-producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for Grazing, &c. Districts.					
	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.
	Number of Hours of Bright Sunshine.																													
1887.																														
Jan. 4-10	7	7	3	3	5	5	4	4	10	10	12	12	7	7	9	9	6	6	16	16	11	11	16	16	12	12	30	30	10	10
11-17	6	13	8	11	10	15	5	9	3	13	2	14	6	13	10	19	5	11	7	23	13	24	15	31	10	22	12	42	8	18
18-24	2	15	15	26	10	25	13	22	11	24	6	20	11	24	7	26	9	20	8	31	5	29	6	37	7	29	15	57	9	27
Jan. 25-31	0	15	19	45	13	38	21	43	17	41	16	36	17	41	7	33	16	36	11	42	6	35	16	53	11	40	35	92	14	41
Feb. 1-7	18	33	27	72	20	58	20	63	18	59	16	52	20	61	15	48	17	53	18	60	21	56	19	72	18	58	26	118	19	60
8-14	14	47	18	90	23	81	41	104	30	89	22	74	27	88	21	69	30	83	29	89	26	82	29	101	27	85	21	139	27	87
15-21	16	63	12	102	19	100	22	126	17	106	16	90	17	105	9	78	10	93	20	109	13	95	15	116	14	99	22	161	15	102
Feb. 22-28	12	75	13	115	30	130	34	160	35	141	32	122	29	134	27	105	33	126	37	146	30	125	35	151	32	131	40	201	31	133
Mar. 1-7	18	93	34	149	23	153	20	180	12	153	22	144	22	156	9	114	17	143	33	179	15	140	18	169	18	149	41	242	20	153
8-14	20	113	31	180	27	180	30	210	21	174	22	166	26	182	26	140	22	165	25	204	22	162	25	194	24	173	16	258	25	178
15-21	41	154	39	219	34	214	35	245	24	198	27	193	32	214	32	172	37	202	41	245	28	190	35	229	35	208	45	303	33	211
22-28	20	174	36	255	36	250	35	280	31	229	35	228	35	249	27	199	28	230	44	289	32	222	42	271	35	243	49	352	35	246
Mar. 29-April 4	13	187	25	280	25	275	30	310	18	247	33	261	26	275	32	231	27	257	44	333	25	247	38	309	33	276	55	407	30	276
April 5-11	41	228	42	322	43	318	33	343	38	285	39	300	39	314	54	285	49	306	58	391	44	291	61	370	53	329	53	460	46	322
12-18	32	260	31	353	41	359	55	398	47	332	48	348	44	358	57	342	51	357	68	459	54	345	69	439	60	389	62	522	52	374
19-25	12	272	22	375	30	389	42	440	38	370	48	396	36	394	27	369	28	385	44	503	26	371	38	477	33	422	54	576	35	409
April 26-May 2	18	290	36	411	42	431	45	485	40	410	35	431	40	434	41	410	46	431	42	545	45	416	63	540	47	469	31	607	43	452
May 3-9	35	325	40	451	21	452	28	513	29	439	34	465	30	464	36	446	37	468	35	580	41	457	47	587	39	508	49	656	35	487
10-16	21	346	28	479	24	476	46	559	43	482	54	519	39	503	37	483	30	498	61	641	34	491	38	625	40	548	60	716	39	526
17-23	14	360	41	520	29	505	21	580	32	514	33	552	31	534	39	522	37	535	45	686	28	519	35	660	37	585	54	770	34	560
24-30	25	385	27	547	8	513	21	601	10	524	18	570	17	551	53	575	35	570	24	710	54	573	48	708	43	628	27	797	30	590
May 31-June 6	20	405	47	594	33	546	37	638	19	543	27	597	33	584	26	601	40	610	23	733	31	604	26	734	29	657	39	836	31	621
June 7-13	8	413	34	628	49	595	72	710	63	606	71	668	58	642	42	643	54	664	70	803	45	649	57	791	53	710	69	905	56	677
14-20	60	473	53	681	57	652	89	799	82	688	93	761	75	717	61	704	70	734	99	902	74	723	85	876	78	788	99	1004	76	753
21-27	74	547	72	753	56	708	49	848	70	758	60	821	61	778	83	787	83	817	82	984	94	817	93	969	87	875	68	1072	74	827
June 28-July 4	19	566	49	802	50	758	73	921	66	824	67	888	61	839	60	847	68	885	87	1071	29	846	49	1018	59	934	78	1150	60	887
July 5-11	36	602	35	837	45	803	58	979	50	874	58	946	49	888	44	891	44	929	48	1119	26	872	32	1050	39	973	58	1208	44	931
12-18	38	640	44	881	47	850	59	1038	52	926	50	996	50	938	55	946	58	987	52	1171	43	915	49	1099	51	1024	54	1262	51	982
19-25	30	670	49	930	55	905	78	1116	54	980	65	1061	60	998	44	990	55	1042	69	1240	27	942	39	1138	47	1071	74	1336	53	1035
July 26-Aug. 1	31	701	37	967	43	948	56	1172	52	1032	59	1120	50	1048	39	1029	38	1080	53	1293	44	986	47	1185	44	1115	65	1401	47	1082
Aug. 2-8	21	722	48	1015	54	1002	76	1248	68	1100	76	1196	64	1112	52	1081	59	1139	80	1373	41	1027	43	1228	55	1170	85	1486	60	1142
9-15	28	750	34	1049	39	1041	49	1297	44	1144	58	1254	45	1157	41	1122	32	1171	70	1443	30	1057	41	1269	43	1213	80	1566	44	1186
16-22	18	768	21	1070	25	1066	36	1333	35	1179	38	1292	31	1188	32	1154	34	1205	54	1497	33	1090	36	1305	38	1251	65	1631	34	1220
23-29	30	798	39	1109	43	1109	41	1374	50	1229	45	1337	44	1232	32	1186	42	1247	46	1543	29	1119	38	1343	37	1288	41	1672	41	1261
Aug. 30-Sept. 5	28	826	24	1133	27	1136	36	1410	28	1257	28	1365	29	1261	27	1213	20	1267	23	1566	16	1135	27	1370	23	1311	34	1706	26	1287
Sept. 6-12	21	847	23	1156	29	1165	33	1443	31	1288	34	1399	30	1291	31	1244	28	1295	36	1602	18	1153	29	1399	28	1339	36	1742	29	1316
13-19	13	860	20	1176	17	1182	21	1464	26	1314	28	1427	22	1313	37	1281	32	1327	35	1637	33	1186	45	1444	36	1375	35	1777	29	1345
20-26	11	871	25	1201	10	1192	16	1480	16	1330	28	1455	19	1332	20	1301	25	1352	38	1675	19	1205	33	1477	27	1402	44	1821	23	1368
Sept. 27-Oct. 3	19	890	24	1225	19	1211	14	1494	22	1352	31	1486	22	1354	28	1329	20	1372	38	1713	16	1221	22	1499	25	1427	33	1854	24	1392
Oct. 4-10	13	903	23	1248	3	1214	2	1496	3	1355	6	1492	8	1362	17	1346	7	1379	8	1721	18	1239	23	1522	15	1442	5	1859	12	1404
11-17	20	923	22	1270	38	1252	33	1529	34	1389	35	1527	33	1395	28	1374	29	1408	37	1758	19	1258	23	1545	27	1469	35	1894	30	1434
18-24	7	930	22	1292	24	1276	23	1552	24	1413	29	1556	24	1419	16	1390	19	1427	24	1782	7	1265	15	1560	16	1485	47	1941	20	1454
Oct. 25-31	8	938	19	1311	26	1302	35	1587	35	1448	32	1588	29	1448	22	1412	21	1448	29	1811	20	1285	26	1586	24	1509	29	1970	26	1480
Nov. 1-7	3	941	8	1319	10	1312	26	1613	20	1468	17	1605	16	1464	14	1426	10	1458	19	1830	16	1301	20	1606	16	1525	16	1986	16	1496
8-14	12	953	5	1324	1	1313	4	1617	2	1470	4	1609	3	1467	2	1428	1	1459	13	1843	8	1309	9	1615	7	1532	22	2008	5	1501
15-21	9	962	11	1335	11	1324	20	1637	17	1487	15	1624	15	1482	13	1441	17	1476	24	1867	13	1322	23	1638	18	1550	27	2035	17	1518
22-28	4	966	10	1345	7	1331	9	1646	11	1498	8	1632	9	1491	10	1451	10	1486	15	1882	15	1337	16	1654	13	1563	6	2041	11	1529
Nov. 29-Dec. 5	3	969	3	1348	10	1341	14	1660	15	1513	12	1644	11	1502	5	1456	4	1490	17	1899	3	1340	8	1662	7	1570	16	2057	9	1538
Dec. 6-12	4	973	13	1361	9	1350	7	1667	6	1519	6	1650	8	1510	7	1463	5	1495	11	1910	8	1348	7	1669	8	1578	10	2067	8	1546
13-19	3	976	4	1365	14	1364	14	1681	12	1531	14	1664	12	1522	9	1472	6	1501	17	1927	6	1354	14	1683	10	1588	19	2086	11	1557
20-26	8	984	3	1368	9	1373	9	1690	8	1539	7	1671	7	1529	9	1481	13	1514	17	1944	10	1364	17	1700	13	1601	12	2098	10	1567
Dec. 27-Jan. 2, 1888	6	990	6	1374	4	1377	13	1703	7	1546	10	1681	8	1537	3	1484	5	1519	11	1955	6	1370	8	1708	7	1608	22	2120	8	1575

TABLE VI.—SHOWING THE WEEKLY AND PROGRESSIVE VALUES FOR THE PERCENTAGE OF THE POSSIBLE DURATION OF BRIGHT SUNSHINE IN EACH DISTRICT, WHICH WAS ACTUALLY RECORDED DURING THE YEAR 1887.

DATE. — LIMITS OF WEEKS.	0. Scotland, N.		Principal Wheat-producing Districts.												Principal Grazing, &c. Districts.												Channel Islands.		Means for the British Islands generally.	
			1. Scotland, E.		2. England, N.E.		3. England, E.		4. Midland Counties.		5. England, S.		Means for Wheat Producing Districts.		6. Scotland, W.		7. England, N.W.		8. England, S.W.		9. Ireland, N.		10. Ireland, S.		Means for Grazing, &c. Districts.					
	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.	Weekly.	Since Jan. 4.
	Percentages of Possible Duration.																													
1887.																														
Jan. 4-10	15	15	7	7	9	9	7	7	18	18	21	21	12	12	17	17	12	12	29	29	22	22	30	30	22	22	52	52	17	17
11-17	12	14	16	11	18	14	8	8	6	12	5	12	11	11	19	18	10	10	11	20	24	22	27	28	18	20	20	36	15	16
18-24	4	10	28	18	18	16	23	15	20	14	11	12	20	15	12	16	16	12	14	18	9	18	11	22	12	17	25	32	16	16
Jan. 25-31	0	7	34	22	22	18	35	19	29	19	25	18	29	19	12	15	28	16	18	18	10	16	22	23	18	18	56	38	24	19
Feb. 1-7	31	13	46	27	33	21	31	22	28	20	25	18	33	22	24	16	27	18	28	20	34	20	30	25	29	20	39	38	31	21
8-14	23	15	29	28	35	23	62	29	45	25	32	20	41	25	32	20	46	24	43	24	40	23	43	28	41	25	31	37	41	25
15-21	24	16	18	26	29	24	32	29	24	25	24	21	25	25	13	19	15	22	28	25	20	23	22	27	19	23	31	36	22	24
Feb. 22-28	17	16	18	25	42	27	47	32	48	28	43	24	40	27	38	22	46	26	50	29	41	26	47	30	44	27	54	39	42	27
Mar. 1-7	24	18	45	28	30	27	26	31	16	27	29	25	29	28	12	20	23	25	43	31	20	25	24	29	24	26	53	40	27	27
8-14	25	19	39	29	35	28	38	32	26	27	28	25	33	28	32	23	28	26	31	30	27	25	31	30	30	27	20	38	31	28
15-21	49	22	47	31	41	30	42	33	31	27	33	26	39	29	39	24	44	28	49	33	34	26	42	31	41	28	54	40	40	29
22-28	23	22	41	32	41	31	40	34	35	28	41	27	40	30	31	25	32	28	51	33	37	27	49	33	40	29	57	43	40	29
Mar. 29-April 4	14	21	27	32	28	31	33	34	20	27	37	28	29	30	36	26	30	29	48	36	28	27	42	34	37	30	62	43	33	30
April 5-11	43	24	44	33	46	32	36	34	41	28	41	29	42	31	58	29	53	31	62	38	47	29	66	36	57	31	57	45	50	31
12-18	32	24	31	33	43	33	57	36	49	30	49	31	46	33	59	31	53	33	71	41	56	32	72	40	62	35	65	47	54	34
19-25	12	23	21	32	30	33	42	37	38	31	49	33	46	33	27	31	28	32	44	41	26	31	38	40	32	35	55	47	39	34
April 26-May 2	17	23	34	32	40	33	44	37	39	31	34	33	38	33	40	32	44	33	41	41	43	32	61	41	46	36	31	46	42	35
May 3-9	31	23	37	32	19	32	27	36	27	31	33	33	29	33	34	32	34	33	34	41	39	33	44	41	37	36	48	46	33	35
10-16	18	23	25	32	22	31	43	37	39	32	51	34	36	33	34	32	27	33	58	42	31	32	35	40	37	36	57	46	36	35
17-23	12	22	36	32	26	31	19	36	29	32	30	34	28	33	35	32	33	33	42	42	25	32	32	40	33	36	50	47	30	35
24-30	21	22	23	31	7	29	19	34	9	30	16	33	15	31	46	33	31	33	22	41	47	33	42	41	38	36	25	46	26	34
May 31-June 6	16	22	39	32	28	29	33	34	17	29	24	32	28	31	22	32	35	33	20	39	27	33	23	40	25	35	35	45	27	33
June 7-13	6	21	28	32	42	30	63	36	55	31	62	34	50	33	35	33	46	34	63	41	39	33	49	40	46	36	62	47	48	35
14-20	48	23	44	32	49	31	77	38	70	33	81	37	64	34	51	34	59	35	87	43	63	35	73	42	67	38	88	48	66	36
21-27	59	25	59	34	47	32	43	38	61	34	52	37	52	35	69	36	71	37	72	45	79	37	80	44	74	40	61	49	63	37
June 28-July 4	15	24	40	34	43	32	63	40	58	36	59	38	53	36	51	36	58	38	77	46	25	36	42	44	51	40	70	50	52	38
July 5-11	29	24	29	34	39	33	51	40	44	36	52	39	43	36	38	36	38	38	42	46	23	36	28	43	34	40	52	50	39	38
12-18	32	25	37	34	41	33	53	41	46	36	45	39	44	37	48	37	51	39	47	46	37	36	44	43	45	40	40	50	45	38
19-25	25	25	43	34	49	34	71	42	49	37	60	40	54	37	39	37	49	39	64	47	24	35	35	43	42	40	69	51	48	39
July 26-Aug. 1	27	25	33	34	39	34	52	42	48	37	55	41	45	38	35	37	34	39	50	47	40	35	43	43	40	40	62	51	43	39
Aug. 2-8	19	25	44	35	50	35	72	44	63	38	72	42	60	39	49	37	55	39	76	48	38	36	41	43	52	41	83	52	56	40
9-15	26	24	32	34	37	35	48	44	43	38	57	42	43	39	39	37	31	39	69	49	29	35	40	43	41	41	79	53	42	40
16-22	17	24	21	34	25	34	36	43	35	38	38	42	31	38	32	37	34	39	54	49	33	35	36	42	38	40	66	54	35	39
23-29	30	25	39	34	44	35	42	43	51	39	47	42	45	39	33	37	43	39	48	49	30	35	39	42	39	40	43	53	42	40
Aug. 30-Sept. 5	29	25	25	34	28	35	39	43	30	39	30	42	30	39	28	37	21	39	25	48	17	35	29	42	24	40	37	53	27	40
Sept. 6-12	23	25	24	34	32	34	36	43	35	39	37	42	33	38	34	37	30	38	41	48	20	34	32	42	31	40	40	53	32	39
13-19	15	24	23	34	20	34	24	43	30	38	32	42	26	38	42	37	37	38	40	48	38	34	51	42	42	40	40	52	34	39
20-26	13	24	29	33	12	34	19	42	19	38	34	41	23	38	24	37	29	38	45	48	23	34	39	42	32	40	52	52	28	39
Sept. 27-Oct. 3	24	24	30	33	24	33	17	41	27	38	38	41	27	37	35	37	24	38	47	48	19	34	27	42	30	40	41	52	28	39
Oct. 4-10	17	24	31	33	5	33	3	41	4	37	7	41	10	37	22	36	9	37	11	47	24	33	30	41	19	39	6	51	15	38
11-17	28	24	31	33	51	33	45	41	47	37	46	41	44	37	39	36	39	37	50	47	26	33	31	41	37	39	47	51	41	38
18-24	10	24	32	33	35	33	33	41	34	37	41	41	35	37	22	36	26	37	33	47	10	33	21	41	22	39	65	51	29	38
Oct. 25-31	13	24	29	33	39	33	51	41	51	37	47	41	43	37	33	36	32	37	42	47	29	33	39	41	35	39	42	51	39	38
Nov. 1-7	4	23	13	33	16	33	40	40	31	37	27	41	25	37	22	36	16	37	29	46	25	33	31	41	25	39	24	50	25	38
8-14	22	23	9	32	2	32	7	40	4	37	6	40	6	36	2	35	1	36	21	46	14	32	14	40	10	38	34	50	8	37
15-21	16	23	20	32	19	32	35	40	29	36	24	40	25	36	23	35	30	36	40	46	22	32	39	40	31	38	44	50	28	37
22-28	8	23	19	32	14	32	16	40	19	36	13	40	16	36	19	35	19	36	25	46	27	32	29	40	24	38	10	49	20	37
Nov. 29-Dec. 5	7	23	6	32	20	32	25	40	27	36	22	39	20	36	9	35	14	35	31	45	6	32	15	40	15	37	28	49	18	37
Dec. 6-12	8	23	28	32	17	32	14	39	12	36	11	39	16	36	13	34	10	35	21	45	16	32	13	39	14	37	18	49	15	37
13-19	7	23	8	32	28	32	26	39	23	36	25	39	22	36	17	34	12	35	31	45	12	31	27	39	20	37	34	48	21	37
20-26	19	23	7	31	17	31	17	39	16	35	14	38	14	35	17	34	27	35	31	45	20	31	33	39	26	37	21	48	20	36
Dec. 27-Jan. 2, 1888	13	22	13	31	7	31	25	39	14	35	19	38	15	35	5	34	10	35	20	44	11	31	15	39	12	37	39	48	13	36

WEEKLY WEATHER REPORT, 1887.

VOL. IV. APPENDIX III.] [*Price 2s.*

Second Series.

TABLE I.—SHOWING FOR EACH DISTRICT, DURING THE NINE YEARS 1878–86, THE MEAN AGGREGATE NUMBERS OF RAINY DAYS FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR.

NUMBERS OF WEEKS.	**Principal Wheat-producing Districts.**						**Principal Grazing, &c. Districts.**						CHANNEL ISLANDS.	MEANS FOR THE BRITISH ISLANDS GENERALLY.
	0. SCOTLAND, N.	**1.** SCOTLAND, E.	**2.** ENGLAND, N.E.	**3.** ENGLAND, E.	**4.** MIDLAND COUNTIES.	**5.** ENGLAND, S.	MEANS FOR WHEAT-PRODUCING DISTRICTS.	**6.** SCOTLAND, W.	**7.** ENGLAND, N.W.	**8.** ENGLAND, S.W.	**9.** IRELAND, N.	**10.** IRELAND, S.	MEANS FOR GRAZING, &C. DISTRICTS.		
	NUMBERS OF DAYS WITH RAIN.														
1	5	4	3	4	4	4	4	5	4	5	5	5	5	5	5
2	10	6	7	8	7	7	7	8	8	8	9	8	8	9	8
3	15	10	10	11	10	10	10	12	11	11	13	12	12	13	11
4	20	13	14	15	14	14	14	16	14	16	18	16	16	17	15
5	25	17	17	19	17	17	17	21	19	20	22	21	21	22	19
6	30	21	21	23	22	22	22	26	23	25	27	27	26	27	24
7	35	25	25	27	26	27	26	31	28	30	33	32	31	33	29
8	40	29	29	31	30	30	30	36	32	34	37	36	35	37	33
9	45	32	33	35	34	34	34	40	36	38	42	41	39	42	37
10	51	37	37	38	37	37	37	45	40	42	47	45	44	47	41
11	55	40	40	41	38	38	39	48	43	44	50	48	47	49	43
12	60	44	43	44	41	41	43	51	46	47	55	51	50	53	47
13	64	47	46	46	44	44	45	55	49	52	59	55	54	58	50
14	67	50	49	49	48	47	49	59	52	56	63	59	58	62	54
15	71	54	53	53	52	50	52	62	56	59	66	63	61	65	57
16	74	58	57	58	55	54	56	65	59	62	70	67	65	70	61
17	77	61	61	62	59	58	60	69	63	67	74	71	69	74	65
18	81	65	64	66	62	61	64	72	66	70	78	74	72	77	68
19	86	68	68	69	65	64	67	76	69	73	82	78	76	80	72
20	90	72	72	72	69	67	70	80	73	76	86	82	79	84	75
21	94	76	75	76	73	72	74	84	77	80	91	86	84	88	79
22	98	79	78	79	76	74	77	87	79	84	94	90	87	92	82
23	102	82	82	83	81	78	81	91	83	88	98	94	91	96	86
24	106	86	85	86	84	81	84	94	87	92	102	98	95	100	90
25	110	89	88	90	88	85	88	98	91	96	107	102	99	104	94
26	113	92	91	92	91	87	91	102	94	99	111	106	102	108	97
27	117	96	94	95	95	90	94	106	97	103	116	110	106	112	100
28	122	101	98	99	99	94	98	111	101	107	121	115	111	116	105
29	126	105	102	103	103	97	102	115	106	111	126	119	115	120	109
30	130	108	106	107	106	101	106	118	110	115	130	123	119	124	113
31	134	111	109	110	109	103	108	122	113	118	134	126	123	126	116
32	138	116	112	113	113	106	112	125	117	122	139	131	127	131	120
33	142	120	116	116	116	109	115	129	120	126	143	134	130	135	123
34	146	123	119	120	119	113	119	133	123	129	147	138	134	139	127
35	150	127	123	124	122	117	123	137	127	133	152	142	138	144	131
36	154	131	126	128	126	120	126	141	131	137	157	147	143	148	135
37	158	134	129	131	129	123	129	145	135	140	161	151	146	152	138
38	162	138	133	135	133	127	133	149	138	144	165	155	150	157	142
39	168	142	137	138	136	131	137	154	143	149	170	159	155	163	146
40	173	146	141	144	140	134	141	158	147	153	174	163	159	166	150
41	177	150	145	147	144	138	145	162	151	157	179	167	163	171	154
42	182	154	150	151	149	142	149	166	155	161	183	172	167	176	158
43	187	158	153	155	153	146	153	170	159	166	187	175	171	182	162
44	192	162	158	160	158	150	158	174	163	172	192	180	176	187	167
45	198	166	161	164	161	154	161	178	167	176	197	185	181	192	171
46	203	170	165	169	165	158	165	182	171	181	202	189	185	197	175
47	208	175	170	173	170	162	170	187	175	185	206	193	189	202	180
48	214	179	175	178	174	166	174	191	180	190	212	198	194	207	184
49	220	183	179	183	177	170	178	195	184	194	216	202	198	212	188
50	225	187	183	187	181	174	182	199	189	199	221	206	203	217	193
51	230	190	187	190	184	177	186	203	192	203	226	211	207	223	197
52	235	195	190	194	188	181	189	208	197	208	231	215	212	227	201

A 52985, 350,—1/88. Wt. 36. E. & S.

TABLE II.—SHOWING FOR EACH DISTRICT, DURING THE TEN YEARS 1878–87, THE MEAN AGGREGATE NUMBERS OF RAINY DAYS FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR.

Numbers of Weeks.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.							
	0. Scotland, N.	1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing, &c. Districts.	Channel Islands.	Means for the British Islands generally.
	Numbers of Days with Rain.														
1	5	4	4	4	4	4	4	5	4	5	5	5	5	5	5
2	10	7	7	8	7	7	7	8	8	9	9	9	9	9	8
3	15	10	10	11	10	10	10	12	11	12	13	12	12	13	11
4	20	13	14	14	14	13	14	16	14	16	17	16	16	17	15
5	25	17	17	18	17	17	17	21	19	20	22	21	21	22	19
6	30	21	21	22	21	21	21	26	23	24	27	26	25	26	23
7	35	25	25	26	26	26	26	31	27	29	32	31	30	32	28
8	40	29	29	30	29	29	29	35	31	33	36	35	34	36	32
9	45	32	32	34	33	33	33	39	35	37	41	40	38	41	36
10	50	36	36	37	35	35	36	44	39	41	46	43	43	45	40
11	54	40	39	39	37	37	38	47	41	43	49	46	45	48	42
12	59	43	43	42	40	40	42	51	45	46	53	50	49	52	46
13	63	47	45	45	43	43	45	54	48	50	58	54	53	56	49
14	66	50	49	48	47	46	48	58	51	54	62	58	57	60	53
15	70	53	52	52	50	49	51	61	54	57	65	61	60	63	56
16	74	57	56	56	54	53	55	64	58	61	68	65	63	68	59
17	77	60	60	60	58	57	59	68	61	65	72	69	67	72	63
18	81	64	64	64	61	59	62	71	64	68	76	72	70	76	66
19	86	67	67	67	64	63	66	75	68	71	80	75	74	78	70
20	90	71	71	71	68	66	69	79	71	75	85	80	78	82	74
21	94	75	74	75	72	71	73	82	75	79	88	84	82	86	78
22	98	78	77	77	75	73	76	86	78	82	92	87	85	90	81
23	102	81	81	81	79	77	80	89	81	86	96	91	89	94	85
24	106	85	84	84	83	80	83	93	84	90	99	95	92	98	88
25	109	88	87	88	86	83	86	96	88	93	103	99	96	102	91
26	112	91	89	90	89	85	89	100	91	96	108	102	99	105	94
27	117	95	92	93	92	88	92	104	94	99	113	106	103	109	98
28	121	99	96	97	96	91	96	108	98	103	118	111	108	112	102
29	126	103	100	100	100	95	100	113	103	108	122	115	112	116	106
30	130	107	104	104	103	98	103	116	106	111	127	119	116	120	110
31	134	110	106	107	106	100	106	120	109	114	131	122	119	122	113
32	138	114	110	110	109	103	109	123	113	118	135	126	123	127	116
33	142	118	113	113	112	106	112	127	117	121	140	130	127	131	120
34	145	121	117	117	115	110	116	131	120	125	144	134	131	135	124
35	150	126	121	121	119	114	120	135	124	129	149	138	135	140	128
36	154	129	124	125	123	117	124	139	128	133	153	143	139	144	132
37	158	133	128	128	126	120	127	143	131	136	157	147	143	148	135
38	163	137	131	132	129	124	131	147	135	140	161	150	147	152	139
39	168	141	135	136	133	128	135	152	140	144	166	155	151	158	143
40	173	145	139	141	137	131	139	156	144	148	170	158	155	161	147
41	178	149	143	144	141	135	142	160	147	152	175	162	159	166	151
42	183	152	147	148	145	138	146	163	151	156	179	166	163	171	155
43	187	156	151	152	149	143	150	167	155	161	183	170	167	177	159
44	193	161	156	157	154	147	155	172	160	167	188	175	172	182	164
45	198	165	159	161	157	151	159	176	164	171	193	179	177	187	168
46	204	169	164	166	161	155	163	180	168	176	197	183	181	192	172
47	209	173	168	170	165	159	167	184	172	180	202	187	185	197	176
48	214	177	173	175	170	163	172	188	177	185	207	193	190	203	181
49	220	182	177	179	173	167	176	193	181	190	212	197	195	208	186
50	226	186	181	184	177	171	180	197	185	194	217	201	199	213	190
51	231	189	185	187	180	174	183	201	189	198	222	205	203	218	193
52	236	193	189	192	184	178	187	205	193	203	227	210	208	223	198

TABLE III.—SHOWING FOR EACH DISTRICT, DURING THE NINE YEARS 1878–86, THE MEAN AGGREGATE AMOUNTS OF RAINFALL FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR.

NUMBERS OF WEEKS.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.							
	0. SCOTLAND, N.	1. SCOTLAND, E.	2. ENGLAND, N.E.	3. ENGLAND, E.	4. MIDLAND COUNTIES.	5. ENGLAND, S.	MEANS FOR WHEAT-PRODUCING DISTRICTS.	6. SCOTLAND, W.	7. ENGLAND, N.W.	8. ENGLAND, S.W.	9. IRELAND, N.	10. IRELAND, S.	MEANS FOR GRAZING, &C. DISTRICTS.	CHANNEL ISLANDS.	MEANS FOR THE BRITISH ISLANDS GENERALLY.
	RAINFALL IN INCHES.														
1	0·90	0·44	0·33	0·47	0·45	0·58	0·45	1·16	0·82	0·87	0·82	0·94	0·92	0·78	0·69
2	1·54	0·78	0·69	0·82	0·77	0·94	0·80	1·87	1·38	1·45	1·36	1·55	1·52	1·33	1·16
3	2·29	1·21	0·94	1·09	1·12	1·35	1·14	2·72	1·82	1·91	1·99	2·13	2·11	1·77	1·63
4	3·07	1·73	1·52	1·58	1·84	1·92	1·72	3·72	2·73	2·91	2·99	3·19	3·11	2·63	2·42
5	3·82	2·24	1·95	1·94	2·48	2·55	2·23	4·82	3·47	3·92	3·71	4·26	4·04	3·40	3·14
6	4·48	2·81	2·49	2·57	3·24	3·41	2·90	6·18	4·35	5·01	4·56	5·70	5·16	4·30	4·03
7	5·13	3·40	2·93	3·20	3·89	4·14	3·51	7·27	4·92	5·96	5·40	6·70	6·05	5·07	4·78
8	5·75	3·80	3·26	3·49	4·26	4·53	3·87	8·01	5·52	6·54	5·94	7·71	6·74	5·72	5·31
9	6·43	4·26	3·75	3·94	4·86	5·19	4·40	8·88	6·28	7·52	6·78	8·74	7·64	6·43	6·02
10	7·19	4·80	4·28	4·32	5·17	5·45	4·80	9·73	6·99	7·94	7·33	9·28	8·25	6·84	6·53
11	7·73	5·25	4·52	4·42	5·21	5·59	5·00	10·25	7·29	8·12	7·68	9·76	8·62	7·06	6·81
12	8·43	5·58	4·76	4·72	5·57	5·92	5·31	10·84	7·72	8·61	8·18	10·25	9·12	7·64	7·22
13	9·02	5·94	5·03	4·96	5·88	6·24	5·61	11·51	8·12	9·28	8·81	11·04	9·75	8·18	7·68
14	9·47	6·27	5·52	5·33	6·46	6·71	6·06	12·19	8·71	10·05	9·47	11·93	10·47	8·81	8·27
15	9·76	6·73	6·03	5·85	6·92	7·20	6·55	12·78	9·17	10·61	9·93	12·45	10·99	9·27	8·77
16	10·10	7·09	6·52	6·37	7·37	7·74	7·02	13·43	9·59	11·13	10·37	13·06	11·52	9·88	9·27
17	10·49	7·55	7·01	6·93	7·88	8·26	7·53	14·08	10·13	11·83	10·96	13·99	12·20	10·40	9·86
18	10·93	7·91	7·47	7·29	8·27	8·61	7·91	14·63	10·59	12·24	11·48	14·42	12·67	10·82	10·29
19	11·52	8·33	7·91	7·72	8·70	8·99	8·33	15·21	11·12	12·75	12·03	15·04	13·23	11·10	10·78
20	12·15	8·81	8·38	8·24	9·49	9·43	8·87	15·95	11·75	13·32	12·92	15·79	13·95	11·44	11·41
21	12·61	9·30	8·88	8·89	10·10	10·05	9·44	16·69	12·40	14·00	13·52	16·52	14·63	12·05	12·04
22	13·06	9·76	9·36	9·39	10·80	10·73	10·01	17·18	13·08	14·70	13·95	17·08	15·20	12·83	12·61
23	13·50	10·30	10·00	10·05	11·70	11·39	10·69	17·81	13·84	15·35	14·67	17·78	15·89	13·35	13·29
24	13·94	10·77	10·48	10·65	12·28	11·81	11·20	18·44	14·48	16·04	15·43	18·54	16·59	13·77	13·90
25	14·43	11·21	11·00	11·22	12·83	12·31	11·71	19·09	15·11	16·57	16·01	19·25	17·21	14·27	14·46
26	14·91	11·68	11·45	11·51	13·45	12·73	12·16	19·90	15·64	17·24	16·75	19·94	17·89	14·81	15·03
27	15·69	12·53	11·89	12·00	13·89	13·14	12·69	20·86	16·42	17·77	17·57	20·69	18·66	15·39	15·68
28	16·22	13·15	12·47	12·65	14·46	13·70	13·29	21·80	17·17	18·58	18·36	21·52	19·49	15·95	16·39
29	16·83	13·98	13·36	13·36	15·31	14·21	14·04	22·65	18·03	19·39	19·28	22·37	20·34	16·52	17·19
30	17·12	14·39	14·06	13·99	16·01	14·79	14·65	23·27	19·02	20·17	20·10	23·19	21·15	17·17	17·90
31	17·76	14·81	14·51	14·61	16·62	15·27	15·16	23·82	19·55	20·68	20·55	23·80	21·68	17·45	18·42
32	18·53	15·54	15·20	15·09	17·30	15·61	15·75	24·99	20·62	21·34	21·39	24·94	22·66	17·99	19·21
33	19·08	16·18	15·73	15·61	17·95	16·11	16·32	25·80	21·39	21·96	22·14	25·73	23·40	18·49	19·86
34	19·46	16·66	16·47	16·33	18·59	16·87	16·98	26·54	22·15	22·64	22·76	26·43	24·10	19·07	20·54
35	20·14	17·33	17·02	16·90	19·32	17·60	17·63	27·31	22·85	23·70	23·57	27·42	24·97	19·84	21·30
36	20·78	17·67	17·38	17·53	19·87	18·25	18·14	28·18	23·49	24·51	24·31	28·11	25·76	20·39	21·95
37	21·58	18·35	18·03	18·18	20·40	18·84	18·78	29·34	24·34	25·30	25·37	29·03	26·68	21·08	22·73
38	22·11	18·88	18·82	18·89	21·20	19·64	19·49	30·56	25·23	26·27	26·24	29·82	27·62	22·07	23·56
39	23·04	19·46	19·35	19·58	21·78	20·17	20·07	31·66	26·00	27·16	27·23	30·59	28·55	22·84	24·31
40	24·01	19·92	19·82	20·02	22·34	20·69	20·56	32·57	26·81	27·92	27·96	31·24	29·30	23·53	24·93
41	24·68	20·65	20·54	21·02	23·26	21·76	21·45	33·71	27·65	29·09	28·93	32·11	30·30	24·61	25·88
42	25·56	21·08	21·19	21·77	24·01	22·47	22·10	34·72	28·59	30·18	29·84	33·14	31·29	25·64	26·70
43	26·43	21·52	21·82	22·51	24·67	23·30	22·76	35·56	29·27	31·32	30·56	33·90	32·12	26·97	27·44
44	27·31	21·97	22·57	23·24	25·63	23·95	23·47	36·77	30·39	32·48	31·47	35·00	33·22	27·78	28·35
45	28·40	22·49	23·18	23·82	26·10	24·55	24·03	38·19	31·26	33·43	32·45	35·84	34·23	28·79	29·13
46	29·26	23·03	23·86	24·67	26·76	25·26	24·72	39·19	31·97	34·33	33·53	36·70	35·14	29·21	29·93
47	30·07	23·72	24·38	25·17	27·25	26·04	25·31	40·16	32·69	35·30	34·29	37·43	35·97	30·70	30·64
48	30·85	24·24	24·97	25·84	27·88	26·72	25·93	41·18	33·59	36·39	35·14	38·25	36·91	31·81	31·42
49	32·04	24·97	25·65	26·44	28·31	27·52	26·58	42·13	34·31	37·27	35·83	38·93	37·69	32·83	32·14
50	33·26	25·42	26·16	26·93	28·85	27·86	27·04	43·27	35·14	38·39	36·68	39·85	38·67	33·78	32·86
51	33·98	25·87	26·58	27·30	29·29	28·39	27·49	44·15	35·77	39·25	37·48	40·49	39·43	34·65	33·46
52	35·07	26·60	27·03	27·90	29·99	29·15	28·13	45·43	36·67	40·45	38·31	41·53	40·48	35·51	34·31

TABLE IV.—SHOWING FOR EACH DISTRICT, DURING THE TEN YEARS 1878–87, THE MEAN AGGREGATE AMOUNTS OF RAINFALL FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR.

Numbers of Weeks.	Principal Wheat-producing Districts.							Principal Grazing, &c. Districts.						Channel Islands.	Means for the British Islands generally.
	0. Scotland, N.	1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-Producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing, &c. Districts.		
	Rainfall in Inches.														
1	0·92	0·47	0·40	0·50	0·52	0·61	0·50	1·16	0·82	0·92	0·85	1·00	0·95	0·83	0·73
2	1·58	0·85	0·75	0·85	0·84	0·98	0·85	1·89	1·38	1·51	1·38	1·61	1·55	1·38	1·29
3	2·44	1·27	0·99	1·11	1·18	1·38	1·19	2·76	1·82	1·97	2·00	2·19	2·15	1·82	1·67
4	3·30	1·77	1·51	1·57	1·85	1·90	1·72	3·77	2·70	2·90	2·96	3·27	3·12	2·61	2·42
5	4·13	2·31	1·93	1·92	2·45	2·50	2·22	4·92	3·41	3·85	3·74	4·32	4·05	3·32	3·14
6	4·74	2·84	2·43	2·49	3·15	3·28	2·84	6·14	4·21	4·84	4·51	5·62	5·06	4·14	3·95
7	5·40	3·38	2·83	3·08	3·74	3·97	3·40	7·20	4·74	5·71	5·31	6·55	5·90	4·87	4·65
8	6·14	3·77	3·14	3·35	4·08	4·32	3·73	7·99	5·33	6·26	5·89	7·51	6·60	5·46	5·17
9	6·75	4·18	3·58	3·76	4·62	4·92	4·21	8·77	6·02	7·14	6·64	8·44	7·40	6·10	5·81
10	7·48	4·75	4·12	4·13	4·93	5·20	4·63	9·59	6·71	7·56	7·18	8·97	8·00	6·48	6·32
11	7·98	5·18	4·36	4·24	5·00	5·36	4·83	10·08	7·00	7·76	7·51	9·44	8·36	6·72	6·60
12	8·72	5·52	4·64	4·58	5·40	5·71	5·17	10·72	7·51	8·29	8·05	9·96	8·91	7·29	7·04
13	9·33	5·88	4·91	4·84	5·70	6·03	5·47	11·36	7·90	8·91	8·66	10·69	9·50	7·79	7·49
14	9·74	6·19	5·35	5·18	6·23	6·48	5·89	11·98	8·43	9·60	9·25	11·50	10·15	8·38	8·62
15	10·03	6·60	5·82	5·65	6·64	6·91	6·32	12·52	8·85	10·10	9·68	11·98	10·63	8·79	8·48
16	10·48	7·01	6·30	6·17	7·08	7·46	6·80	13·31	9·29	10·65	10·20	12·63	11·22	9·43	9·01
17	10·87	7·46	6·78	6·73	7·62	8·00	7·32	13·93	9·83	11·37	10·77	13·50	11·88	9·96	9·60
18	11·32	7·79	7·20	7·12	7·99	8·35	7·69	14·44	10·25	11·76	11·26	13·90	12·32	10·37	10·01
19	11·88	8·20	7·61	7·53	8·39	8·71	8·09	14·99	10·76	12·22	11·77	14·46	12·84	10·63	10·47
20	12·53	8·71	8·13	8·07	9·16	9·15	8·64	15·79	11·45	12·82	12·71	15·22	13·60	10·99	11·12
21	12·95	9·18	8·62	8·68	9·75	9·74	9·19	16·45	12·04	13·44	13·25	15·89	14·21	11·58	11·70
22	13·37	9·62	9·07	9·17	10·50	10·45	9·76	16·94	12·73	14·12	13·68	16·44	14·78	12·34	12·27
23	13·93	10·13	9·65	9·77	11·33	11·05	10·39	17·58	13·42	14·72	14·35	17·08	15·43	12·81	12·91
24	14·34	10·57	10·08	10·31	11·84	11·43	10·85	18·15	14·00	15·34	15·03	17·76	16·06	13·19	13·46
25	14·78	10·96	10·55	10·82	12·34	11·87	11·31	18·74	14·57	15·81	15·55	18·40	16·61	13·64	13·96
26	15·25	11·42	10·98	11·10	12·92	12·25	11·73	19·49	15·05	16·42	16·26	19·04	17·25	14·13	14·49
27	16·06	12·25	11·40	11·55	13·32	12·63	12·23	20·47	15·80	16·94	17·08	19·77	18·01	14·67	15·12
28	16·61	12·83	11·94	12·20	13·87	13·18	12·80	21·37	16·50	17·71	17·86	20·57	18·80	15·20	15·80
29	17·27	13·62	12·75	12·85	14·65	13·64	13·50	22·21	17·30	18·47	18·73	21·36	19·61	15·72	16·56
30	17·62	14·05	13·42	13·46	15·32	14·19	14·09	22·88	18·24	19·24	19·58	22·18	20·42	16·34	17·26
31	18·30	14·48	13·83	14·01	15·87	14·63	14·56	23·45	18·72	19·70	20·09	22·73	20·94	16·64	17·75
32	19·03	15·15	14·48	14·48	16·49	14·93	15·11	24·52	19·71	20·31	20·87	23·77	21·84	17·16	18·48
33	19·58	15·79	15·02	15·00	17·15	15·47	15·69	25·30	20·45	20·90	21·60	24·55	22·56	17·66	19·13
34	19·96	16·28	15·72	15·69	17·76	16·21	16·33	26·05	21·19	21·56	22·26	25·36	23·28	18·28	19·81
35	20·75	17·08	16·31	16·31	18·59	17·06	17·07	26·99	22·01	22·73	23·26	26·45	24·29	19·12	20·68
36	21·45	17·46	16·78	16·91	19·15	17·69	17·59	27·91	22·67	23·52	24·17	27·10	25·07	19·64	21·33
37	22·22	18·12	17·44	17·56	19·73	18·29	18·23	29·00	23·50	24·32	24·97	27·94	25·95	20·29	22·09
38	22·73	18·62	18·16	18·21	20·38	19·03	18·88	30·14	24·34	25·22	25·80	28·67	26·83	21·20	22·86
39	23·59	19·18	18·71	18·89	20·94	19·52	19·45	31·16	25·15	26·07	26·74	29·40	27·70	21·98	23·58
40	24·57	19·69	19·24	19·34	21·48	20·02	19·95	32·03	25·90	26·78	27·44	30·00	28·43	22·63	24·19
41	25·23	20·30	19·97	20·30	22·32	20·99	20·79	33·07	26·67	27·90	28·34	30·80	29·35	23·68	25·07
42	26·13	20·81	20·60	21·00	23·00	21·63	21·41	34·02	27·52	28·88	29·18	31·73	30·27	24·61	25·84
43	27·05	21·24	21·20	21·76	23·73	22·50	22·09	34·96	28·27	30·18	30·00	32·64	31·21	26·05	26·65
44	27·95	21·84	22·01	22·54	24·72	23·30	22·88	36·21	29·41	31·46	31·03	33·79	32·38	26·95	27·63
45	28·94	22·34	22·62	23·12	25·18	23·89	23·43	37·50	30·19	32·35	31·92	34·56	33·30	27·95	28·37
46	29·80	22·86	23·24	23·91	25·79	24·59	24·08	38·44	30·84	33·23	32·93	35·42	34·17	28·43	29·13
47	30·66	23·55	23·74	24·39	26·26	25·36	24·66	39·47	31·56	34·16	33·69	36·14	35·00	29·83	29·83
48	31·53	24·05	24·31	25·02	26·84	25·99	25·24	40·51	32·43	35·19	34·53	36·95	35·92	30·87	30·58
49	32·72	24·78	24·96	25·60	27·30	26·82	25·89	41·56	33·19	36·15	35·26	37·70	36·77	31·93	31·33
50	33·99	25·26	25·47	26·09	27·86	27·19	26·37	42·79	34·07	37·32	36·19	38·64	37·80	32·93	32·09
51	34·70	25·71	25·94	26·45	28·27	27·68	26·81	43·60	34·65	38·11	36·94	39·23	38·51	33·75	32·66
52	35·72	26·39	26·38	27·00	28·92	28·39	27·42	44·79	35·49	39·24	37·71	40·22	39·49	34·57	33·46

TABLE V.—SHOWING FOR EACH DISTRICT, DURING THE NINE YEARS 1878–86, THE MEAN AGGREGATE VALUES FOR ACCUMULATED HEAT ABOVE 42° F. FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR

Numbers of Weeks.	0. Scotland, N.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.						Channel Islands.	Means for the British Islands generally.
		1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing &c. Districts.		
	Day Degrees, above 42° Fahrenheit.														
1	5	4	7	10	13	14	10	10	12	21	16	23	16	27	13
2	10	10	11	13	19	21	15	17	17	32	26	38	26	42	21
3	18	20	19	19	27	29	23	27	25	45	38	56	38	59	31
4	19	21	20	23	31	34	26	30	28	58	43	70	46	74	36
5	26	27	26	31	40	45	34	37	36	72	55	88	58	95	46
6	33	36	34	41	50	58	44	49	46	92	69	112	74	117	59
7	38	44	45	55	66	76	57	62	58	116	84	136	91	145	74
8	47	59	60	72	83	93	73	72	69	135	100	156	106	168	90
9	55	73	73	90	104	115	91	86	85	160	120	184	127	193	109
10	64	93	95	117	131	143	116	103	103	186	142	213	149	224	133
11	76	109	114	145	158	170	139	121	122	213	164	240	172	254	156
12	81	120	126	164	177	192	156	135	137	236	183	266	191	277	174
13	90	134	139	186	203	219	176	150	156	260	203	295	213	307	195
14	109	163	168	225	245	261	212	181	189	294	236	332	246	346	229
15	128	187	191	257	279	299	243	211	219	331	269	369	280	385	262
16	152	218	219	294	318	340	278	246	254	371	307	412	318	427	298
17	176	250	252	339	365	389	319	281	292	418	348	458	359	478	339
18	204	291	290	392	420	444	367	325	335	466	395	510	406	532	387
19	233	334	335	449	481	507	421	369	385	524	446	569	459	595	440
20	270	382	386	514	546	582	482	423	443	592	501	634	519	669	501
21	318	447	453	594	626	669	558	488	516	672	567	708	590	753	574
22	366	514	523	678	706	759	636	557	589	755	638	786	665	841	651
23	409	575	591	764	790	853	715	627	665	843	710	869	743	930	729
24	459	651	674	855	883	952	803	708	753	936	793	959	830	1026	817
25	527	742	768	959	987	1064	904	800	852	1039	885	1059	927	1133	916
26	608	850	881	1087	1113	1196	1025	908	966	1158	992	1172	1039	1252	1032
27	693	961	1002	1216	1241	1326	1149	1018	1083	1278	1105	1290	1155	1376	1152
28	777	1069	1122	1344	1363	1457	1271	1123	1194	1394	1208	1401	1264	1499	1268
29	855	1170	1234	1471	1488	1592	1391	1225	1308	1519	1309	1516	1375	1628	1383
30	939	1274	1344	1595	1610	1723	1509	1334	1422	1643	1415	1633	1489	1757	1499
31	1020	1379	1460	1725	1737	1860	1632	1443	1539	1769	1526	1754	1606	1891	1619
32	1109	1489	1576	1852	1862	1997	1755	1554	1657	1894	1638	1872	1723	2027	1739
33	1199	1594	1693	1981	1987	2134	1878	1661	1774	2019	1748	1989	1838	2160	1858
34	1282	1697	1801	2103	2103	2265	1994	1764	1887	2143	1854	2104	1950	2294	1972
35	1356	1788	1905	2219	2214	2391	2103	1858	1991	2260	1952	2212	2055	2422	2079
36	1437	1882	2010	2334	2322	2513	2212	1954	2096	2371	2049	2319	2158	2547	2185
37	1510	1968	2105	2443	2424	2628	2314	2045	2194	2478	2137	2415	2254	2667	2284
38	1570	2040	2190	2543	2519	2737	2406	2124	2285	2584	2217	2505	2343	2786	2375
39	1624	2106	2262	2621	2595	2825	2482	2194	2361	2671	2287	2586	2420	2889	2451
40	1674	2166	2326	2690	2663	2907	2550	2257	2429	2752	2352	2663	2491	2988	2521
41	1719	2217	2380	2750	2717	2975	2608	2311	2486	2822	2402	2723	2549	3075	2579
42	1755	2257	2426	2799	2763	3032	2655	2359	2534	2883	2451	2780	2601	3152	2628
43	1779	2283	2457	2837	2797	3074	2690	2388	2567	2931	2482	2819	2637	3214	2664
44	1801	2308	2488	2872	2829	3115	2722	2419	2600	2980	2514	2860	2675	3275	2699
45	1821	2332	2512	2901	2857	3152	2751	2447	2628	3021	2545	2901	2708	3331	2730
46	1834	2346	2528	2917	2873	3173	2767	2462	2648	3053	2567	2932	2732	3373	2750
47	1843	2356	2539	2931	2886	3192	2781	2476	2661	3078	2582	2955	2750	3412	2766
48	1854	2369	2553	2947	2903	3212	2797	2493	2676	3106	2600	2981	2771	3448	2784
49	1858	2373	2559	2955	2911	3224	2804	2500	2684	3122	2609	2995	2782	3473	2793
50	1862	2380	2567	2964	2922	3239	2814	2508	2695	3141	2620	3010	2795	3498	2805
51	1867	2385	2571	2969	2927	3249	2820	2515	2702	3156	2629	3032	2807	3523	2814
52	1874	2393	2578	2975	2934	3261	2828	2526	2712	3179	2642	3051	2822	3551	2825

TABLE VI. — SHOWING FOR EACH DISTRICT, DURING THE TEN YEARS 1878-87, THE MEAN AGGREGATE VALUES FOR ACCUMULATED HEAT ABOVE 42° F. FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR.

Numbers of Weeks.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.						Channel Islands.	Means for the British Islands generally.
	0. Scotland, N.	1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing, &c. Districts.		
	Day-Degrees above 42° Fahrenheit.														
1	4	4	7	9	11	13	9	9	11	19	14	21	15	26	12
2	9	9	10	12	17	19	13	16	15	29	24	35	24	39	19
3	17	19	17	17	25	27	21	26	24	43	37	54	37	56	29
4	21	23	21	22	32	34	26	32	29	57	45	71	47	73	37
5	27	30	28	32	41	46	35	39	37	73	57	91	59	95	47
6	34	38	35	40	51	58	44	50	46	91	70	113	74	114	59
7	40	47	46	53	65	75	57	62	58	113	86	137	91	140	74
8	50	64	63	71	85	93	75	74	71	133	104	159	108	164	92
9	60	80	77	87	104	113	92	88	86	157	125	187	129	189	111
10	69	98	96	112	129	139	115	104	102	181	145	214	149	217	132
11	79	113	113	137	153	163	136	120	119	205	166	239	170	244	153
12	85	124	126	158	173	187	154	135	135	229	185	265	190	268	172
13	94	140	142	181	200	215	176	152	154	255	206	295	212	298	194
14	113	168	169	218	241	256	210	181	186	289	238	331	245	335	228
15	133	193	191	250	274	292	240	212	215	325	272	369	279	374	260
16	157	225	221	288	314	335	277	247	249	365	310	411	316	415	297
17	180	256	253	332	359	382	316	280	287	411	350	457	357	465	337
18	209	298	291	384	413	438	365	324	330	458	397	509	404	519	385
19	239	342	336	440	474	500	418	371	379	517	449	569	457	582	438
20	275	390	386	503	537	572	478	423	435	584	503	633	516	654	497
21	324	454	449	581	614	657	551	490	507	663	569	709	588	737	570
22	373	521	519	665	694	747	629	559	581	746	643	788	663	825	646
23	419	586	591	755	782	843	711	631	660	836	719	874	744	916	728
24	474	667	678	850	880	947	804	716	753	936	807	970	836	1019	820
25	545	760	773	953	986	1058	906	812	855	1042	905	1075	938	1127	922
26	629	872	889	1084	1116	1193	1031	922	972	1163	1015	1193	1053	1249	1042
27	714	983	1012	1215	1245	1325	1156	1033	1090	1286	1129	1313	1170	1376	1163
28	798	1091	1153	1346	1369	1457	1279	1138	1203	1404	1234	1426	1281	1501	1280
29	878	1196	1248	1474	1496	1593	1401	1242	1319	1530	1338	1544	1395	1632	1398
30	962	1300	1360	1600	1620	1726	1521	1351	1434	1654	1443	1662	1509	1762	1515
31	1046	1406	1477	1731	1748	1864	1645	1460	1553	1782	1560	1784	1628	1899	1637
32	1131	1513	1590	1857	1870	2000	1766	1568	1668	1906	1665	1902	1742	2035	1754
33	1218	1615	1705	1983	1992	2134	1886	1672	1783	2029	1774	2017	1855	2168	1871
34	1305	1720	1815	2107	2111	2267	2004	1876	1899	2155	1882	2134	1989	2303	1997
35	1379	1812	1920	2225	2223	2394	2115	1871	2003	2271	1981	2243	2074	2432	2095
36	1456	1904	2022	2338	2328	2513	2221	1964	2106	2381	2075	2348	2175	2557	2198
37	1527	1986	2113	2443	2427	2625	2319	2052	2201	2486	2161	2442	2268	2676	2294
38	1586	2059	2196	2540	2519	2730	2409	2131	2290	2589	2241	2532	2357	2793	2383
39	1640	2123	2266	2615	2593	2816	2483	2198	2364	2672	2309	2610	2431	2893	2457
40	1687	2181	2328	2683	2657	2895	2549	2259	2430	2751	2372	2684	2499	2990	2524
41	1729	2228	2378	2739	2709	2960	2603	2310	2484	2817	2420	2741	2554	3073	2579
42	1764	2218	2423	2787	2754	3014	2639	2356	2530	2876	2466	2797	2605	3148	2622
43	1788	2294	2453	2824	2787	3056	2683	2385	2562	2923	2498	2836	2641	3208	2662
44	1809	2319	2483	2859	2819	3097	2715	2416	2594	2970	2529	2876	2677	3267	2696
45	1828	2341	2506	2886	2846	3131	2742	2441	2621	3009	2559	2915	2709	3321	2726
46	1840	2354	2520	2901	2860	3151	2757	2556	2639	3038	2579	2943	2731	3361	2744
47	1848	2363	2531	2915	2874	3170	2771	2470	2652	3063	2593	2966	2749	3399	2760
48	1860	2377	2545	2930	2890	3190	2786	2487	2668	3091	2612	2991	2770	3435	2778
49	1863	2380	2550	2938	2898	3202	2794	2493	2675	3108	2620	3006	2780	3460	2787
50	1867	2386	2558	2947	2908	3218	2803	2501	2685	3128	2631	3022	2793	3487	2798
51	1872	2391	2561	2951	2913	3228	2809	2508	2691	3141	2639	3041	2804	3510	2807
52	1878	2398	2567	2956	2920	3239	2816	2517	2700	3162	2651	3059	2818	3535	2817

TABLE VII.—SHOWING FOR EACH DISTRICT, DURING THE NINE YEARS 1878–86, THE MEAN AGGREGATE VALUES FOR ACCUMULATED HEAT BELOW 42° F., FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR.

Numbers of Weeks.	0. Scotland, N.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.						Channel Islands.	Means for the British Islands generally.
		1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing, &c. Districts.		
	Day-Degrees below 42° Fahrenheit.														
1	33	40	29	30	28	18	29	25	22	9	18	11	17	4	23
2	74	86	75	85	82	64	78	64	62	37	49	37	50	19	64
3	111	130	117	135	129	105	123	99	97	64	80	64	81	34	102
4	149	185	171	187	186	149	176	145	145	96	123	93	120	52	148
5	177	219	207	225	223	179	211	170	175	115	147	110	143	58	177
6	203	251	237	256	250	200	239	191	198	126	167	120	160	62	200
7	234	283	262	281	271	215	262	212	215	134	186	130	175	64	219
8	265	318	292	311	302	239	292	237	240	152	206	147	196	70	244
9	298	351	320	340	329	260	320	263	262	165	226	156	214	76	267
10	332	380	347	367	356	281	346	283	284	181	245	172	233	83	290
11	361	415	378	400	389	309	378	309	308	200	268	188	255	92	317
12	397	450	410	432	421	333	409	334	334	216	291	205	276	96	343
13	429	481	438	463	451	354	437	358	357	232	314	223	297	101	367
14	449	503	455	481	470	365	455	375	372	240	329	233	310	103	383
15	466	519	468	494	484	374	468	387	382	247	340	241	319	104	394
16	480	530	480	506	497	383	479	396	392	254	347	247	327	105	403
17	493	541	488	514	506	388	487	402	397	256	352	250	331	105	409
18	503	550	497	525	517	393	496	409	403	260	359	253	337	105	417
19	515	558	503	530	524	396	502	415	407	261	363	256	340	105	421
20	522	563	505	533	527	397	505	418	408	262	365	256	342	105	424
21	525	564	506	534	528	397	506	418	408	262	365	257	342	105	424
22	526	564	506	534	528	397	506	418	408	262	365	257	342	105	424
23	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
24	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
25	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
26	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
27	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
28	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
29	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
30	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
31	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
32	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
33	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
34	527	564	506	534	528	397	506	418	408	262	365	257	342	105	424
35	528	564	506	534	528	397	506	418	408	262	365	257	342	105	424
36	528	564	506	534	528	397	506	418	408	262	365	257	342	105	424
37	528	564	506	534	529	397	506	418	408	262	365	257	342	105	424
38	528	565	506	534	529	397	506	418	408	262	365	257	342	105	424
39	528	566	506	534	530	397	507	418	408	262	365	257	342	105	425
40	529	567	506	534	532	398	507	418	408	262	365	257	342	105	425
41	534	572	509	537	536	400	511	422	410	262	368	258	344	105	428
42	539	574	511	538	539	400	512	423	410	263	369	258	345	105	429
43	554	593	521	549	551	407	524	436	418	266	380	266	353	105	439
44	567	607	531	557	562	414	534	444	425	268	386	271	359	105	447
45	583	626	546	575	580	425	550	456	435	272	398	280	368	105	459
46	603	650	563	595	603	441	570	475	448	280	412	291	381	106	476
47	627	680	588	618	631	459	595	496	467	290	433	305	398	106	497
48	650	708	612	645	658	480	620	515	483	301	449	317	413	108	517
49	692	753	655	691	708	519	665	554	518	327	489	348	447	117	556
50	725	798	697	730	748	548	704	587	547	345	521	376	475	126	590
51	764	844	738	774	791	580	745	621	581	364	553	404	505	132	625
52	798	886	773	810	827	608	781	647	609	380	577	425	528	137	655

TABLE VIII. — SHOWING, FOR EACH DISTRICT DURING THE TEN YEARS 1878-87, THE MEAN AGGREGATE VALUES FOR ACCUMULATED HEAT BELOW 42° F. FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR.

Numbers of Weeks.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.						Channel Islands.	Means for the British Islands Generally.
	0. Scotland, N.	1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing, &c. Districts.		
	Day-Degrees below 42° Fahrenheit.														
1	36	43	33	35	33	21	33	30	27	12	22	13	21	6	27
2	77	91	81	92	89	69	84	70	69	41	54	40	55	22	70
3	113	134	122	140	135	109	128	102	102	66	83	66	84	35	106
4	148	183	171	190	188	150	176	143	146	95	121	92	119	51	148
5	176	217	207	227	224	179	211	168	175	113	146	108	142	57	177
6	203	250	239	260	254	203	241	191	201	128	167	121	162	64	202
7	232	282	264	287	278	220	266	212	219	138	186	131	177	68	222
8	261	314	293	318	307	243	295	235	242	155	205	146	197	73	246
9	292	346	322	348	336	267	324	259	266	171	223	156	215	79	270
10	330	378	351	377	365	289	352	283	289	189	243	174	236	87	294
11	361	415	384	414	402	320	387	311	317	212	269	193	260	99	324
12	395	449	415	444	432	343	417	334	341	227	290	209	280	103	349
13	426	478	441	474	461	364	444	357	363	243	311	226	300	107	372
14	448	502	459	492	481	375	462	376	380	252	329	239	315	109	389
15	467	518	474	508	497	387	477	388	392	260	341	248	326	111	402
16	481	530	485	520	511	396	488	397	401	267	348	253	333	111	411
17	496	543	495	529	522	401	498	406	407	271	354	259	339	112	419
18	506	552	504	539	532	406	507	413	413	274	360	261	344	112	426
19	517	560	509	544	538	409	512	418	416	276	364	264	348	112	430
20	525	565	511	547	541	410	515	420	418	276	366	264	349	112	432
21	527	566	512	548	542	410	516	421	418	276	366	264	349	112	433
22	528	566	512	548	542	410	516	421	418	276	366	265	349	112	433
23	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
24	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
25	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
26	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
27	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
28	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
29	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
30	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
31	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
32	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
33	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
34	529	566	512	548	542	410	516	421	418	276	366	265	349	112	433
35	530	566	512	548	542	410	516	421	418	276	366	265	349	112	433
36	530	566	512	548	542	410	516	421	418	276	366	265	349	112	433
37	530	566	512	548	543	410	516	421	418	276	366	265	349	112	433
38	530	567	512	548	543	410	516	421	418	276	366	265	349	112	433
39	530	568	512	548	545	410	517	421	418	276	366	265	349	112	433
40	532	569	512	549	546	410	517	421	418	276	366	265	349	112	433
41	539	577	517	554	553	416	523	428	420	279	369	267	353	112	438
42	544	580	520	557	558	418	527	430	421	280	370	268	354	112	441
43	559	599	531	568	571	426	539	443	429	284	381	275	362	112	451
44	571	613	540	577	582	432	549	450	435	286	387	281	368	112	459
45	589	632	554	593	599	442	564	463	445	289	399	290	377	112	471
46	609	657	574	617	626	462	587	483	462	300	415	303	393	113	490
47	635	687	598	641	655	479	612	505	481	311	436	318	410	114	511
48	658	715	622	668	681	499	637	523	496	321	452	330	424	115	531
49	702	762	665	714	731	537	682	563	530	346	492	360	458	123	570
50	735	806	706	752	770	564	720	596	560	364	523	387	486	131	603
51	776	852	748	798	814	599	762	631	594	385	545	416	514	139	638
52	812	897	786	837	854	631	801	659	625	404	581	439	542	145	672

TABLE IX.—SHOWING FOR EACH DISTRICT, DURING THE SIX YEARS 1881–86, THE MEAN AGGREGATE NUMBERS OF HOURS OF BRIGHT SUNSHINE FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR.

Numbers of Weeks.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.						Channel Islands.	Means for the British Islands generally.
	0. Scotland, N.	1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing, &c. Districts.		
	Numbers of Hours of Bright Sunshine.														
1	5	12	6	10	9	9	9	6	7	11	10	13	9	13	9
2	12	21	14	21	18	19	19	15	15	23	17	23	19	30	19
3	19	36	22	29	26	27	28	24	23	34	30	37	30	44	29
4	25	47	29	43	35	36	38	30	32	42	39	49	38	57	38
5	34	59	36	58	46	47	49	37	40	57	50	62	49	76	49
6	43	74	45	73	59	61	62	49	51	72	64	77	63	98	63
7	58	90	57	86	72	74	76	61	63	85	78	92	76	119	76
8	76	117	73	100	87	88	93	75	77	102	95	110	92	142	93
9	97	134	90	120	106	108	112	90	96	120	107	126	108	164	110
10	117	155	111	143	129	130	134	111	115	145	126	153	130	191	132
11	138	184	140	178	159	163	165	135	142	180	152	182	158	240	162
12	163	216	164	207	188	194	194	159	163	215	177	210	185	274	190
13	191	240	188	242	215	226	222	187	188	243	205	242	213	309	218
14	230	275	228	290	254	265	262	230	228	282	244	285	254	351	258
15	268	303	247	319	280	294	289	262	255	318	276	320	286	395	288
16	301	333	270	351	307	324	317	294	285	355	311	355	320	435	319
17	339	374	298	387	342	361	352	323	316	397	342	389	353	485	353
18	378	408	337	430	382	405	392	367	360	443	383	437	398	538	395
19	415	450	378	477	427	452	437	407	404	493	426	482	442	601	440
20	464	498	427	530	472	500	485	454	455	546	472	534	492	662	489
21	510	551	482	586	516	549	537	503	504	590	515	578	538	713	538
22	548	603	525	643	565	600	587	552	555	643	564	628	588	772	588
23	594	644	558	692	601	642	627	593	597	689	596	664	628	820	628
24	630	679	596	738	643	689	669	634	641	744	629	704	670	880	670
25	662	715	626	772	675	726	703	671	672	791	663	743	708	937	706
26	700	765	667	827	723	781	753	708	713	838	692	781	746	994	750
27	732	801	713	887	775	838	803	749	758	892	721	817	787	1054	795
28	764	846	760	936	819	887	850	790	802	942	754	854	828	1113	839
29	795	884	795	978	853	926	887	831	837	977	785	886	863	1155	875
30	829	923	830	1022	889	969	926	868	873	1025	814	923	901	1211	914
31	851	960	863	1054	923	1008	962	905	911	1069	843	956	937	1276	950
32	876	998	902	1095	963	1051	1002	945	948	1112	872	992	974	1332	988
33	903	1031	937	1141	1006	1098	1043	979	986	1156	902	1028	1010	1390	1027
34	933	1068	964	1179	1044	1139	1079	1012	1021	1206	931	1064	1047	1445	1063
35	961	1099	984	1207	1067	1169	1105	1034	1040	1237	950	1089	1070	1478	1088
36	993	1135	1012	1240	1095	1201	1137	1068	1071	1274	977	1122	1102	1513	1120
37	1021	1159	1040	1278	1128	1235	1168	1098	1104	1310	1005	1153	1134	1559	1151
38	1046	1179	1062	1311	1158	1267	1195	1121	1131	1343	1031	1183	1162	1605	1179
39	1070	1208	1087	1343	1186	1297	1224	1148	1157	1372	1054	1211	1188	1641	1206
40	1094	1233	1114	1369	1209	1322	1249	1171	1181	1401	1075	1235	1213	1671	1231
41	1116	1252	1132	1390	1230	1345	1270	1191	1200	1424	1094	1261	1234	1701	1252
42	1133	1269	1149	1410	1251	1366	1289	1206	1213	1445	1110	1278	1250	1726	1270
43	1158	1291	1164	1430	1265	1383	1307	1225	1228	1462	1131	1297	1269	1746	1288
44	1171	1304	1173	1444	1278	1397	1319	1238	1242	1477	1146	1316	1284	1765	1302
45	1184	1323	1186	1464	1293	1412	1336	1251	1254	1491	1162	1334	1298	1782	1317
46	1193	1332	1195	1477	1305	1425	1347	1261	1265	1506	1178	1349	1312	1802	1330
47	1201	1346	1211	1493	1319	1440	1362	1274	1278	1521	1192	1365	1326	1817	1344
48	1209	1355	1220	1502	1328	1449	1371	1281	1284	1531	1201	1375	1334	1830	1353
49	1219	1367	1231	1513	1339	1459	1382	1293	1293	1546	1214	1387	1347	1843	1365
50	1223	1377	1238	1523	1347	1469	1391	1300	1299	1556	1222	1400	1355	1854	1373
51	1226	1384	1246	1533	1356	1479	1400	1307	1305	1565	1228	1409	1363	1865	1382
52	1231	1393	1253	1537	1361	1484	1406	1312	1310	1573	1234	1419	1370	1874	1388

TABLE X.—SHOWING FOR EACH DISTRICT, DURING THE SEVEN YEARS 1881–87, THE MEAN AGGREGATE NUMBERS OF HOURS OF BRIGHT SUNSHINE FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR.

Numbers of Weeks	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.						Channel Islands.	Means for the British Islands generally.
	0. Scotland, N.	1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing, &c. Districts.		
	Numbers of Hours of Bright Sunshine.														
1	5	10	6	9	9	9	9	6	7	12	10	13	10	15	10
2	12	19	14	19	17	18	17	15	14	23	18	24	19	32	18
3	19	34	22	28	26	26	27	24	23	33	30	37	29	46	28
4	23	46	30	43	36	36	38	30	32	42	38	49	38	62	38
5	33	61	39	59	48	48	51	38	42	57	50	63	50	82	51
6	44	77	50	77	63	63	66	52	56	74	66	80	66	104	66
7	58	92	63	92	77	76	80	63	67	88	81	95	79	125	80
8	76	117	81	109	94	93	99	79	84	108	99	116	97	151	98
9	96	136	99	128	113	113	118	93	102	129	112	132	114	175	116
10	116	159	121	153	136	135	141	115	122	154	131	159	136	200	139
11	140	189	150	187	165	167	172	140	150	189	158	188	165	249	169
12	164	222	176	217	194	199	202	165	172	226	183	219	193	285	198
13	190	246	200	252	219	231	230	193	198	256	211	251	222	323	226
14	229	282	240	297	259	270	270	238	239	298	251	297	265	367	268
15	267	310	263	330	287	301	298	273	269	338	286	337	301	413	300
16	297	339	287	364	316	334	328	304	300	376	319	372	334	455	331
17	332	380	317	401	351	371	364	336	332	418	353	411	370	502	367
18	370	414	354	442	390	414	403	378	375	463	394	458	414	555	409
19	405	454	392	489	434	461	446	418	418	514	435	502	457	618	452
20	449	501	438	537	478	507	492	464	466	566	479	552	505	677	499
21	492	550	486	588	517	552	539	514	513	607	523	597	551	725	545
22	528	602	528	642	562	600	587	559	563	656	570	643	598	781	593
23	568	642	563	694	601	645	629	600	607	705	604	682	640	832	635
24	608	679	604	746	649	699	675	644	654	767	642	729	687	897	681
25	645	721	637	783	687	740	714	688	692	818	685	776	732	956	723
26	681	770	680	841	737	796	765	728	738	871	714	815	773	1016	769
27	713	806	725	900	789	853	815	769	782	925	742	850	814	1076	815
28	746	851	773	951	834	903	862	812	829	974	777	889	856	1135	859
29	777	890	811	998	871	945	903	853	866	1015	808	922	893	1181	898
30	811	928	847	1044	910	991	944	891	902	1063	838	960	931	1238	938
31	833	967	883	1082	948	1035	983	930	943	1112	869	995	970	1306	977
32	858	1005	922	1124	989	1080	1024	970	980	1159	899	1032	1008	1366	1016
33	884	1037	955	1168	1031	1126	1063	1004	1017	1205	929	1068	1045	1424	1054
34	914	1074	985	1207	1070	1167	1101	1037	1053	1254	957	1104	1081	1477	1091
35	941	1104	1006	1236	1094	1197	1127	1060	1073	1284	977	1129	1105	1511	1116
36	972	1138	1034	1269	1123	1229	1159	1093	1103	1320	1002	1162	1136	1545	1148
37	998	1161	1060	1304	1154	1263	1188	1124	1136	1357	1030	1195	1168	1590	1178
38	1021	1182	1080	1335	1182	1294	1215	1147	1162	1390	1055	1225	1196	1636	1206
39	1044	1210	1104	1365	1210	1324	1243	1174	1188	1420	1078	1252	1222	1671	1233
40	1066	1235	1128	1387	1230	1346	1265	1196	1210	1447	1098	1276	1245	1698	1255
41	1088	1254	1149	1410	1252	1371	1287	1217	1229	1472	1117	1302	1267	1729	1277
42	1104	1272	1167	1430	1274	1393	1307	1232	1244	1493	1132	1318	1284	1757	1296
43	1126	1294	1183	1453	1291	1412	1327	1252	1260	1511	1153	1338	1303	1778	1315
44	1138	1306	1193	1468	1305	1426	1340	1265	1273	1527	1168	1357	1318	1796	1329
45	1151	1323	1204	1486	1318	1440	1354	1277	1284	1542	1183	1374	1332	1814	1343
46	1160	1333	1213	1500	1331	1454	1366	1286	1295	1558	1198	1390	1345	1835	1356
47	1168	1345	1228	1514	1345	1467	1380	1299	1308	1572	1213	1407	1360	1849	1370
48	1175	1354	1237	1525	1355	1476	1389	1306	1314	1583	1221	1416	1368	1863	1379
49	1184	1366	1248	1535	1364	1486	1400	1317	1322	1598	1233	1427	1379	1875	1390
50	1187	1375	1256	1545	1373	1497	1409	1325	1328	1609	1241	1440	1389	1887	1399
51	1192	1381	1264	1555	1382	1506	1418	1332	1335	1619	1247	1451	1397	1898	1408
52	1196	1391	1271	1561	1387	1512	1424	1337	1339	1628	1253	1460	1403	1909	1414

TABLE XI.—SHOWING FOR EACH DISTRICT, DURING THE SIX YEARS 1881-86, THE MEAN PERCENTAGES OF THE POSSIBLE AMOUNT OF BRIGHT SUNSHINE FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR.

Numbers of Weeks.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.						Channel Islands.	Means for the British Islands generally.
	0. Scotland, N.	1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing, &c. Districts.		
	Percentages of Possible Duration.														
1	11	24	13	19	16	16	18	12	13	20	19	24	18	22	18
2	13	22	13	20	16	17	18	15	14	20	17	22	18	26	18
3	14	24	14	17	16	16	17	16	15	20	18	22	18	25	18
4	12	23	13	19	15	16	17	14	15	18	18	22	17	24	17
5	13	23	13	20	16	16	18	14	14	20	18	22	18	25	18
6	14	24	13	21	17	17	18	15	15	20	19	22	18	26	18
7	15	24	14	21	17	17	19	15	15	20	19	22	18	27	19
8	17	26	15	20	18	18	19	16	16	20	20	23	19	28	19
9	19	26	16	21	19	19	20	17	17	21	20	23	20	28	20
10	20	26	18	22	20	20	21	18	18	23	20	24	21	29	21
11	21	27	20	25	22	23	23	19	20	25	22	25	22	32	23
12	21	28	21	26	23	24	24	21	20	26	23	26	23	33	24
13	23	28	21	27	24	25	25	21	21	27	23	27	24	33	25
14	25	29	24	29	26	27	27	24	24	28	25	29	26	35	27
15	26	29	23	30	26	27	27	24	24	29	26	30	27	36	27
16	27	29	23	30	26	27	27	25	24	30	27	30	27	36	27
17	27	30	24	30	27	28	28	26	25	31	27	31	28	37	28
18	28	30	25	31	28	29	29	27	26	32	28	32	29	38	29
19	28	31	26	32	29	30	30	28	27	33	29	32	30	40	30
20	29	32	27	33	30	31	31	29	29	34	30	33	31	41	31
21	30	32	28	34	30	32	31	30	29	34	30	34	31	41	31
22	30	33	29	35	31	33	32	30	30	35	31	34	32	42	32
23	31	33	29	36	31	33	32	31	31	36	31	34	33	42	33
24	31	33	29	36	31	34	33	31	31	36	30	34	32	43	33
25	30	33	29	36	31	34	33	31	31	37	31	34	33	43	33
26	30	33	29	36	32	34	33	31	31	37	30	34	33	44	33
27	30	33	30	37	32	35	33	31	32	37	30	34	33	44	33
28	30	33	30	37	33	36	34	31	32	38	30	34	33	45	34
29	30	33	30	37	33	35	34	31	32	38	30	34	33	44	34
30	30	33	30	38	33	35	34	31	32	38	30	34	33	45	34
31	29	33	30	37	33	36	34	32	32	38	30	34	33	45	34
32	29	33	31	37	33	36	34	32	32	38	30	34	33	46	34
33	29	33	30	37	33	36	34	32	32	38	29	34	33	46	34
34	29	33	31	37	33	36	34	32	32	39	29	34	33	46	34
35	29	33	30	37	33	36	34	32	32	39	29	34	33	46	34
36	29	33	30	37	33	36	34	32	32	38	29	34	33	46	34
37	29	33	30	37	33	37	34	32	32	39	29	34	33	46	34
38	29	33	30	37	33	37	34	32	32	39	29	34	33	46	34
39	29	33	30	37	33	37	34	32	32	38	29	34	33	46	34
40	29	33	30	37	33	36	34	32	32	38	29	34	33	46	34
41	29	33	30	37	33	36	34	31	32	38	29	34	33	46	34
42	29	33	30	37	33	36	34	31	31	38	29	33	32	46	33
43	29	33	30	37	33	36	34	31	31	38	29	33	32	45	33
44	29	32	30	37	32	35	33	31	31	37	29	33	32	45	33
45	29	33	30	36	32	35	33	31	31	37	29	33	32	45	33
46	29	32	29	36	32	35	33	31	31	37	29	33	32	44	33
47	29	32	29	36	32	35	33	31	31	37	29	33	32	44	33
48	29	32	29	36	32	35	33	30	30	37	29	33	32	44	33
49	29	32	29	36	32	34	33	31	31	37	29	33	32	44	33
50	28	32	29	36	32	34	33	30	30	36	28	33	31	43	32
51	28	32	29	35	32	34	32	30	30	36	28	32	31	43	32
52	28	32	28	35	31	34	32	30	30	36	28	32	31	43	32

TABLE XII.—SHOWING FOR EACH DISTRICT, DURING THE SEVEN YEARS 1881–87, THE MEAN PERCENTAGES OF THE POSSIBLE AMOUNT OF BRIGHT SUNSHINE FROM THE BEGINNING OF THE YEAR TO THE END OF EACH WEEK IN THE YEAR.

Numbers of Weeks.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.						Channel Islands.	Means for the British Islands generally.
	0. Scotland, N.	1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing, &c. Districts.		
	Percentages of Possible Duration.														
1	12	22	12	17	16	17	17	12	13	21	19	25	18	26	18
2	13	20	13	18	16	17	17	15	14	20	18	22	18	27	18
3	13	23	14	17	16	15	17	16	14	19	18	22	18	26	18
4	12	23	14	19	16	16	18	14	15	18	18	22	17	26	18
5	13	24	14	21	16	17	18	14	15	20	18	22	18	27	18
6	14	24	14	22	18	18	19	16	16	20	19	23	19	28	19
7	15	24	15	22	18	18	19	16	16	21	20	23	19	28	19
8	17	26	17	22	19	19	21	17	17	21	21	24	20	29	21
9	19	26	18	23	20	20	21	17	18	22	20	23	20	30	21
10	20	26	19	24	21	21	22	18	19	24	21	25	21	30	22
11	21	27	21	26	23	23	24	20	21	26	22	26	23	33	24
12	21	29	22	27	24	24	25	21	21	27	23	27	24	34	25
13	22	29	23	28	24	25	26	22	22	28	24	28	25	35	26
14	25	30	25	30	26	27	28	25	25	30	26	30	27	36	28
15	26	30	24	30	26	27	27	25	25	31	27	31	28	37	28
16	26	29	24	31	27	28	28	26	25	32	27	31	28	38	28
17	27	30	25	31	27	29	28	26	26	32	28	32	29	38	29
18	27	30	26	32	28	30	29	27	27	33	28	33	30	39	30
19	28	31	26	33	29	31	30	28	28	34	29	33	30	41	30
20	28	32	27	34	30	32	31	29	29	35	30	34	31	42	31
21	29	32	28	34	30	32	31	30	30	35	30	35	32	42	32
22	29	33	29	35	31	33	32	31	31	36	31	35	33	43	33
23	29	33	29	36	31	33	32	31	31	36	31	35	33	43	33
24	29	33	29	36	32	34	33	31	32	37	31	35	33	43	33
25	29	33	29	36	32	34	33	32	32	38	32	36	34	44	34
26	29	33	30	37	32	35	33	32	32	38	31	36	34	45	34
27	29	33	30	37	33	36	34	32	32	38	31	35	34	45	34
28	29	33	30	38	33	36	34	32	33	39	31	35	34	45	34
29	29	33	31	38	33	36	34	32	33	39	31	35	34	45	34
30	29	33	31	38	33	36	34	32	33	39	30	35	34	46	34
31	29	34	31	38	33	37	35	32	33	39	30	35	34	46	35
32	28	33	31	38	33	37	34	32	33	39	30	35	34	47	34
33	28	33	31	38	34	37	35	33	33	40	30	35	34	47	35
34	28	33	31	38	34	37	35	33	33	40	30	35	34	47	35
35	28	33	31	38	34	37	35	32	33	40	30	35	34	47	35
36	29	33	31	38	34	37	35	32	33	40	30	35	34	47	35
37	28	33	31	38	34	37	35	32	33	40	30	35	34	47	35
38	28	33	31	38	34	37	35	33	33	40	30	35	34	47	35
39	28	33	31	38	34	37	35	33	33	40	30	35	34	47	35
40	28	33	31	38	33	36	34	32	33	40	30	35	34	47	34
41	28	33	31	38	33	37	34	32	33	40	30	35	34	47	34
42	28	33	30	38	34	37	34	32	32	39	30	34	33	46	34
43	28	33	30	38	33	36	34	32	32	39	30	34	33	46	34
44	28	32	30	37	33	36	34	32	32	39	29	34	33	46	34
45	28	33	30	37	33	36	34	31	32	38	29	34	33	45	34
46	28	32	29	37	33	36	33	31	32	38	29	34	33	45	33
47	28	32	30	37	33	36	34	31	31	38	29	34	33	45	34
48	28	32	29	36	32	35	33	31	31	38	29	34	33	45	33
49	28	32	29	36	32	35	33	31	31	38	29	33	32	44	33
50	28	32	29	36	32	35	33	31	31	38	29	33	32	44	33
51	27	32	29	36	32	34	33	31	31	37	29	33	32	44	33
52	27	32	29	35	32	34	32	30	30	37	28	33	32	43	32

WEEKLY WEATHER REPORT, 1887.

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Second Series.

TABLE I.—SHOWING IN DEGREES FAHRENHEIT FOR EACH DISTRICT, AND FOR THE EIGHT YEARS 1878–85, THE MEAN TEMPERATURE OF THE AIR FOR EACH WEEK IN THE YEAR.

NUMBERS OF WEEKS.	0. SCOTLAND, N.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.						CHANNEL ISLANDS.	MEANS FOR THE BRITISH ISLANDS GENERALLY.
		1. SCOTLAND, E.	2. ENGLAND, N.E.	3. ENGLAND, E.	4. MIDLAND COUNTIES.	5. ENGLAND, S.	MEANS FOR WHEAT-PRODUCING DISTRICTS.	6. SCOTLAND, W.	7. ENGLAND, N.W.	8. ENGLAND, S.W.	9. IRELAND, N.	10. IRELAND, S.	MEANS FOR GRAZING, &c. DISTRICTS.		
	MEAN WEEKLY VALUES.														
1	38·6	37·1	39·1	39·3	39·4	41·0	39·2	39·3	40·2	43·6	41·1	43·6	41·6	45·4	40·4
2	37·6	36·8	36·6	35·2	35·5	36·8	36·2	38·1	37·7	40·1	39·4	41·3	39·3	42·1	37·8
3	38·7	37·6	37·4	35·9	36·4	37·3	36·9	38·5	38·4	40·3	39·4	40·9	39·5	42·4	38·2
4	37·0	34·8	35·0	35·7	35·4	37·2	35·6	36·6	36·4	40·1	37·5	40·4	38·2	42·0	36·9
5	39·3	38·7	38·0	37·9	38·2	39·4	38·4	40·0	39·2	42·0	40·6	42·7	40·9	44·0	39·7
6	39·8	39·7	39·6	40·1	40·7	41·6	40·3	41·0	40·9	43·9	41·8	44·2	42·4	44·8	41·4
7	38·9	39·3	40·4	41·4	41·9	43·1	41·2	40·8	41·6	44·7	41·6	43·8	42·5	46·7	41·9
8	39·1	39·7	40·4	40·7	40·6	41·8	40·6	40·8	40·9	43·6	42·0	42·9	41·9	44·8	41·3
9	39·3	39·6	40·7	41·1	41·9	42·6	41·2	40·9	41·7	44·0	42·8	45·3	42·9	45·6	42·1
10	39·4	40·9	41·9	42·9	43·0	43·7	42·5	42·3	42·6	44·4	43·3	45·1	43·5	46·2	43·0
11	39·8	40·6	41·2	41·9	42·0	43·0	41·7	41·6	42·3	44·0	42·4	44·5	43·0	46·1	42·4
12	37·6	38·5	39·1	39·8	39·8	41·5	39·7	40·1	40·2	42·8	40·9	42·9	41·4	44·7	40·6
13	37·9	38·6	39·1	39·9	40·3	41·8	39·9	40·2	40·3	42·8	40·8	42·6	41·3	44·9	40·6
14	42·0	42·8	43·0	44·5	44·8	45·7	44·2	43·8	44·3	45·6	44·1	45·4	44·6	47·1	44·4
15	42·2	43·1	43·1	44·3	44·8	45·9	44·2	44·8	45·0	46·2	45·2	46·3	45·5	47·7	44·9
16	43·1	44·3	44·5	45·2	45·3	46·6	45·2	45·4	45·3	46·5	46·1	47·0	46·1	48·0	45·7
17	43·3	45·0	45·6	47·2	47·2	48·0	46·6	45·7	46·5	47·9	46·8	47·9	47·0	49·1	46·8
18	44·4	46·2	46·0	47·8	47·6	48·9	47·3	46·9	47·1	48·3	47·4	48·8	47·7	49·7	47·5
19	43·9	46·3	46·8	48·4	48·7	49·7	48·0	47·1	47·8	49·6	47·8	49·3	48·3	50·6	48·2
20	46·1	48·2	49·3	51·1	51·3	52·7	50·5	49·7	50·7	51·9	50·1	51·7	50·8	52·7	50·7
21	48·5	51·3	51·8	53·3	53·5	54·4	52·9	51·7	52·6	53·4	51·5	53·0	52·4	54·1	52·7
22	48·2	52·0	52·4	54·1	53·8	55·2	53·5	52·4	53·1	54·3	52·7	53·7	53·2	54·8	53·4
23	47·8	50·7	51·9	54·2	54·0	55·4	53·2	52·1	53·0	54·5	52·4	53·7	53·1	54·7	53·2
24	49·1	52·9	53·9	54·9	55·3	56·1	54·6	53·4	54·4	55·4	53·6	54·7	54·3	55·8	54·5
25	51·8	55·2	56·0	57·4	57·3	58·2	56·8	55·4	56·5	57·0	55·4	56·1	56·1	57·5	56·5
26	54·4	57·9	58·4	60·6	60·3	61·2	59·7	58·1	58·8	59·1	57·7	58·4	58·4	59·1	59·1
27	54·1	57·5	59·0	60·2	59·6	60·2	59·3	57·4	58·1	58·6	57·6	58·2	58·0	59·2	58·7
28	54·3	57·5	59·2	60·4	59·4	60·6	59·4	57·2	58·0	58·5	56·7	57·7	57·6	59·5	58·5
29	53·4	56·6	58·1	60·3	59·8	61·3	59·2	56·8	57·6	59·7	56·5	58·4	57·8	60·2	58·5
30	53·8	56·5	57·5	59·3	59·4	60·7	58·7	57·3	58·2	59·8	57·0	58·9	58·2	60·4	58·5
31	54·2	57·5	59·0	61·1	60·5	62·0	60·0	58·2	59·2	60·5	58·4	59·6	59·2	61·4	59·6
32	55·0	58·0	58·6	60·2	59·8	61·6	59·6	58·0	59·0	60·0	57·9	58·9	58·8	61·6	59·2
33	54·8	57·3	59·0	60·7	60·1	61·5	59·7	57·6	58·9	60·0	58·0	58·8	58·7	61·2	59·2
34	54·0	56·7	57·4	59·4	58·4	60·8	58·5	56·8	58·1	59·8	57·1	58·4	58·0	61·2	58·3
35	52·2	54·4	56·2	57·9	57·1	59·4	57·0	55·2	56·3	58·2	55·6	57·1	56·5	60·1	56·8
36	53·3	55·4	56·5	57·8	57·0	58·8	57·1	55·6	56·8	57·8	55·5	57·2	56·6	59·8	56·9
37	52·5	54·1	55·2	57·1	56·0	58·2	56·1	54·7	55·7	57·1	54·5	55·6	55·5	58·8	55·8
38	50·7	52·7	54·4	56·1	55·9	57·5	55·3	53·4	55·3	57·1	53·5	54·9	54·8	58·7	55·1
39	49·9	51·3	52·5	53·0	52·7	54·6	52·8	52·0	53·1	54·4	52·1	53·7	53·1	56·6	53·0
40	48·7	50·2	50·7	51·0	50·4	52·7	51·0	50·6	51·2	53·0	50·8	52·5	51·6	55·6	51·3
41	46·8	47·6	48·5	49·6	48·3	50·7	48·9	48·5	49·3	51·4	48·2	50·1	49·5	54·0	49·2
42	46·3	47·0	48·0	48·4	47·7	49·7	48·2	48·2	48·4	50·7	48·6	50·0	49·2	53·0	48·7
43	42·5	42·3	44·2	45·2	44·5	46·7	44·6	44·0	45·3	47·9	44·5	45·9	45·5	50·6	45·1
44	42·5	42·8	44·3	44·8	44·1	46·1	44·4	44·5	45·2	47·9	45·2	46·7	45·9	50·2	45·2
45	42·6	42·7	43·6	43·8	43·8	45·6	43·9	44·2	45·0	47·4	44·8	46·4	45·6	50·0	44·8
46	41·0	40·3	41·6	41·4	41·0	42·5	41·4	41·6	42·5	45·2	42·9	44·9	43·4	47·8	42·4
47	39·4	38·5	39·8	40·3	39·2	41·9	39·9	40·2	40·8	43·7	40·9	42·5	41·6	47·0	40·8
48	39·4	39·1	39·9	39·7	40·0	41·6	40·1	41·0	41·7	44·6	41·8	43·7	42·6	46·7	41·4
49	36·8	36·2	36·7	36·6	36·0	38·4	36·8	37·3	38·3	40·8	37·5	39·4	38·7	44·2	37·8
50	38·5	36·3	37·0	37·4	37·3	39·6	37·5	38·5	38·9	41·8	38·9	40·3	39·7	44·3	38·6
51	38·2	37·0	37·3	37·1	37·5	39·1	37·6	39·0	39·0	42·2	39·8	41·4	40·3	45·0	39·0
52	39·0	38·0	38·3	38·6	38·5	40·7	38·8	40·1	39·9	43·5	40·7	42·7	41·4	45·3	40·1

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TABLE II.—SHOWING IN DEGREES FAHRENHEIT FOR EACH DISTRICT, AND FOR THE NINE YEARS 1878 TO 1876, THE MEAN TEMPERATURE OF THE AIR FOR EACH WEEK IN THE YEAR.

Numbers of Weeks.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.						Channel Islands.	Means for the British Islands generally.
	0. Scotland, N.	1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing, &c. Districts.	
	Mean Weekly Values.													
1	38·6	37·5	39·3	39·4	39·6	41·2	39·4	39·6	40·4	43·7	41·3	43·6	41·7	45·5	40·6
2	37·1	36·2	36·1	34·7	35·1	36·5	35·7	37·7	37·3	39·8	39·1	41·9	39·0	42·0	37·4
3	38·2	37·3	37·2	35·8	36·4	37·4	36·8	38·4	38·3	40·2	39·3	40·8	39·4	42·4	38·1
4	36·9	34·5	34·7	35·2	34·9	36·8	35·2	36·1	35·9	39·2	37·1	39·6	37·6	41·6	36·4
5	38·9	38·3	37·7	37·7	38·0	39·4	38·2	39·6	38·9	41·6	40·2	42·2	40·5	42·9	39·4
6	39·3	39·1	39·0	39·4	40·0	40·9	39·7	40·3	40·2	43·2	41·4	43·8	41·8	44·4	40·8
7	39·0	39·4	40·1	40·5	41·3	42·4	40·7	40·8	41·3	44·1	41·6	43·7	42·3	46·1	41·5
8	38·7	39·0	39·7	39·8	39·7	41·0	39·8	40·3	40·3	42·2	41·6	42·6	41·4	44·4	40·6
9	38·6	38·8	39·8	40·1	40·7	41·6	40·2	40·1	40·7	43·1	41·9	44·5	42·1	44·9	41·2
10	38·6	39·9	40·8	41·6	41·6	42·5	41·3	41·3	41·4	43·3	42·3	44·0	42·5	45·3	41·9
11	39·4	39·7	40·3	40·8	40·9	41·9	40·7	40·7	41·1	42·8	41·6	43·6	42·0	45·0	41·4
12	37·8	38·7	39·3	40·1	40·1	41·5	39·9	40·2	40·3	42·8	41·2	43·1	41·5	44·8	40·7
13	38·7	39·6	40·2	41·0	41·4	42·6	41·0	40·9	41·3	43·5	41·5	43·3	42·1	45·4	41·6
14	41·8	42·7	43·2	44·8	44·9	45·8	44·3	43·6	44·2	45·6	43·9	45·3	44·5	47·1	44·4
15	42·0	42·9	43·0	44·2	44·5	45·6	44·0	44·4	44·6	45·9	44·7	45·8	45·1	47·3	44·6
16	43·1	44·2	44·3	45·1	45·2	46·4	45·0	45·4	45·3	46·4	46·0	46·9	46·0	47·7	45·5
17	43·3	44·7	45·2	47·0	47·3	48·3	46·5	45·7	46·6	48·1	46·9	48·0	47·1	49·2	46·8
18	44·1	46·0	45·7	47·4	47·4	48·8	47·1	46·7	46·9	48·3	47·4	48·8	47·6	49·7	47·4
19	44·1	46·7	47·2	49·0	49·3	50·2	48·5	47·3	48·3	50·0	48·3	49·7	48·7	51·1	48·6
20	45·7	47·7	48·7	50·6	50·7	52·4	50·0	49·1	50·0	51·6	49·5	51·3	50·3	52·5	50·2
21	48·3	51·1	51·5	53·4	53·3	54·4	52·7	51·4	52·4	53·4	51·3	52·7	52·2	54·0	52·5
22	47·8	51·5	52·0	53·9	53·4	54·9	53·1	51·8	52·5	53·8	52·1	53·0	52·6	54·5	52·9
23	47·8	50·7	51·7	54·1	53·9	55·4	53·2	52·0	52·9	54·5	52·3	53·8	53·1	54·7	53·2
24	49·2	52·9	53·9	55·0	55·3	56·1	54·6	53·4	54·5	55·3	53·7	54·8	54·3	55·8	54·5
25	51·6	55·0	55·4	56·8	56·8	57·9	56·4	55·2	56·1	56·8	55·2	56·2	55·9	57·2	56·2
26	53·8	57·4	58·0	60·3	60·0	60·9	59·3	57·4	58·3	58·9	57·3	58·2	58·0	59·0	58·7
27	54·1	57·8	59·4	60·4	60·2	60·5	59·7	57·7	58·5	59·2	58·1	58·8	58·5	59·7	59·1
28	53·9	57·4	59·0	60·3	59·5	60·7	59·4	56·9	57·9	58·6	56·7	57·8	57·6	59·6	58·5
29	53·2	56·6	58·1	60·2	59·7	61·2	59·2	56·7	57·6	59·7	56·5	58·4	57·8	60·3	58·5
30	53·9	56·7	57·7	59·6	59·6	60·8	58·9	57·5	58·3	59·7	57·0	58·8	58·3	60·5	58·6
31	53·6	57·0	58·5	60·6	60·1	61·7	59·6	57·7	58·7	60·1	57·9	59·2	58·7	61·1	59·2
32	54·7	57·8	58·6	60·2	59·8	61·6	59·6	57·8	58·7	60·0	57·9	59·0	58·7	61·5	59·2
33	54·5	57·0	58·8	60·4	59·9	61·4	59·5	57·3	58·7	59·8	57·8	58·7	58·5	61·1	59·0
34	53·9	56·7	57·4	59·4	58·6	60·9	58·6	56·7	58·1	59·8	57·1	58·4	58·0	61·0	58·3
35	52·5	55·0	56·8	58·6	57·8	60·0	57·6	55·5	56·8	58·6	56·0	57·5	56·9	60·4	57·3
36	53·4	55·5	56·9	58·5	57·5	59·3	57·5	55·7	57·1	57·9	55·6	57·2	56·7	59·9	57·1
37	52·5	54·2	55·6	57·4	56·3	58·5	56·4	54·7	55·9	57·3	54·5	55·7	55·6	59·1	56·0
38	50·5	52·2	54·1	56·1	55·7	57·5	55·1	53·2	55·0	57·1	53·4	54·9	54·7	58·9	54·9
39	49·7	51·1	52·3	53·0	52·6	54·5	52·7	51·9	52·8	54·3	52·0	53·5	52·9	56·6	52·8
40	48·9	50·5	51·2	51·9	51·3	53·5	51·7	51·0	51·8	53·6	51·2	52·9	52·1	56·2	51·9
41	47·3	48·2	49·0	50·3	49·0	51·4	49·6	49·0	49·9	51·8	48·7	50·5	50·0	54·5	49·8
42	46·5	47·2	48·2	48·7	47·9	49·8	48·4	48·4	48·7	50·7	48·6	50·0	49·3	53·1	48·9
43	43·0	42·8	44·7	45·7	44·9	47·1	45·0	44·4	45·6	48·1	44·8	46·2	45·8	50·9	45·4
44	43·1	43·4	45·0	45·5	44·8	46·9	45·1	45·1	45·7	48·4	45·6	47·0	46·4	50·6	45·8
45	42·6	42·8	43·6	43·8	43·7	45·6	43·9	44·2	44·9	47·2	44·7	46·2	45·4	50·0	44·7
46	41·2	40·6	41·8	41·7	41·3	42·8	41·6	41·8	42·8	45·2	43·1	45·0	43·6	47·9	42·6
47	39·7	38·9	40·1	40·6	39·7	42·3	40·3	40·7	41·2	44·1	41·4	43·2	42·1	47·4	41·2
48	40·3	39·7	40·3	40·0	40·2	41·8	40·4	41·6	42·0	44·7	42·2	44·0	42·9	46·9	41·7
49	36·7	36·1	36·6	36·5	36·1	38·3	36·7	37·6	38·4	40·8	37·7	39·8	38·9	44·3	37·8
50	38·3	36·5	37·2	37·8	37·7	40·1	37·9	38·5	39·1	42·0	38·9	40·5	39·8	44·5	38·9
51	37·5	36·3	36·8	36·7	36·9	38·8	37·1	38·2	38·3	41·5	39·0	40·5	39·5	44·7	38·3
52	38·5	37·5	37·9	38·0	38·1	40·2	38·3	39·8	39·6	43·0	40·2	42·2	41·0	45·2	39·7

TABLE III.—SHOWING IN DEGREES FAHRENHEIT FOR EACH DISTRICT, AND FOR THE TEN YEARS 1878–87, THE MEAN TEMPERATURE OF THE AIR FOR EACH WEEK IN THE YEAR.

Numbers of Weeks.	0. Scotland, N.	Principal Wheat-producing Districts.						Principal Grazing, &c. Districts.						Channel Islands.	Means for the British Islands generally.
		1. Scotland, E.	2. England, N.E.	3. England, E.	4. Midland Counties.	5. England, S.	Means for Wheat-producing Districts.	6. Scotland, W.	7. England, N.W.	8. England, S.W.	9. Ireland, N.	10. Ireland, S.	Means for Grazing, &c. Districts.		
	Mean Weekly Values.														
1	38·0	36·9	38·6	38·6	38·7	40·5	38·7	38·8	39·6	43·0	40·5	43·0	41·0	45·1	39·9
2	37·0	36·0	35·8	34·4	34·6	36·1	35·4	37·5	37·0	39·5	38·9	40·8	38·7	41·9	37·1
3	38·5	37·7	37·5	36·1	36·7	37·6	37·1	38·9	38·6	40·4	39·7	41·2	39·8	42·6	38·5
4	37·7	35·7	35·6	35·8	35·8	37·3	36·0	37·2	36·8	39·9	38·1	40·5	38·5	42·0	37·3
5	38·8	38·4	38·0	38·2	38·4	39·8	38·6	39·7	39·2	41·8	40·3	42·4	40·7	44·1	39·7
6	39·3	38·8	38·6	38·9	39·4	40·3	39·2	40·0	39·6	42·4	41·0	43·1	41·2	43·7	40·2
7	39·1	39·5	40·0	40·1	40·9	41·9	40·5	40·8	41·1	43·6	41·6	43·6	42·1	45·7	41·3
8	39·3	39·6	40·2	40·0	40·1	41·2	40·2	40·8	40·8	42·4	42·1	43·1	41·8	44·6	41·0
9	39·1	39·2	39·7	39·7	40·3	41·1	40·0	40·3	40·6	42·9	42·1	44·4	42·1	44·8	41·1
10	37·9	39·3	40·3	41·0	41·1	42·0	40·7	40·6	40·9	42·7	41·9	43·5	41·9	44·9	41·3
11	39·0	39·1	39·6	39·9	40·0	41·0	39·9	40·2	40·4	41·9	41·1	42·8	41·3	44·1	40·6
12	38·1	38·9	39·6	40·5	40·5	41·9	40·3	40·4	40·6	43·0	41·4	43·3	41·7	44·9	41·0
13	39·0	40·1	40·5	41·2	41·6	42·7	41·2	41·2	41·5	43·5	41·9	43·5	42 3	45·5	41·8
14	41·5	42·4	42·9	44·4	44·6	45·5	44·0	43·3	43·9	45·3	43·6	45·0	44·2	46·9	44·1
15	42·0	42·9	42·8	43·9	44·2	45·2	43·8	44·3	44·4	45·6	44·7	45·7	44·9	47·2	44·4
16	43·1	44·2	44·5	45·4	45·4	46·6	45·2	45·4	45·3	46·3	46·0	46·9	46·0	47·8	45·6
17	43·0	44·3	44·9	46·5	46·7	47·8	46·0	45·3	46·2	47·6	46·4	47·4	46·6	49·0	46·3
18	44·3	46·1	45·9	47·5	47·5	48·9	47·2	46·9	47·0	48·3	47·6	48·9	47·7	49·7	47·5
19	44·5	47·0	47·3	48·9	49·4	50·2	48·6	47·7	48·3	50·1	48·5	50·0	48·9	51·0	48·8
20	45·5	47·6	48·6	50·2	50·4	52·0	49·8	48·9	49·7	51·4	49·2	51·0	50·0	52·2	49·9
21	48·5	51·1	51·0	53·0	52·9	54·2	52·4	51·6	52·3	53·3	51·4	52·9	52·3	53·8	52·4
22	48·1	51·5	51·9	54·0	53·5	54·9	53·2	51·9	52·6	53·9	52·4	53·2	52·8	54·6	53·0
23	48·3	51·3	52·4	54·6	54·4	55·7	53·7	52·3	53·3	54·8	52·8	54·2	53·5	55·1	53·6
24	49·8	53·5	54·5	55·5	56·1	56·8	55·3	54·0	55·3	56·2	54·6	55·7	55·2	56·7	55·3
25	52·1	55·4	55·5	56·8	57·1	57·9	56·5	55·8	56·6	57·2	56·0	57·1	56·5	57·4	56·5
26	54·2	57·9	58·6	60·7	60·5	61·2	59·8	57·7	58·7	59·3	57·7	58·7	58·4	59·4	59·1
27	54·1	57·9	59·6	60·8	60·6	60·9	60·0	57·8	58·8	59·5	58·3	59·2	58·7	60·1	59·4
28	54·0	57·5	59·2	60·6	59·6	60·8	59·5	57·1	58·1	58·8	56·9	58·1	57·8	60·0	58·7
29	53·4	56·9	58·4	60·4	60·1	61·4	59·4	56·9	57·9	60·1	56·8	58·8	58·1	60·5	58·8
30	54·1	56·8	58·0	60·0	59·8	61·0	59·1	57·5	58·5	59·8	57·1	58·9	58·4	60·7	58·8
31	53·9	57·2	58·7	60·8	60·3	61·8	59·8	57·7	59·0	60·3	58·1	59·5	58·9	61·5	59·4
32	54·2	57·3	58·1	60·0	59·4	61·5	59·3	57·3	58·4	59·8	57·5	58·7	58·3	61·4	58·8
33	54·1	56·6	58·4	60·0	59·5	61·1	59·1	56·9	58·4	59·6	57·5	58·4	58·2	61·0	58·7
34	54·4	57·1	57·8	59·8	59·0	61·1	59·0	56·9	58·6	60·0	57·5	58·8	58·4	61·2	58·7
35	52·6	55·1	57·0	58·7	57·9	60·0	57·7	55·5	56·9	58·6	55·9	57·5	56·9	60·5	57·3
36	53·0	55·1	56·5	58·2	57·1	59·0	57·2	55·3	56·8	57·7	55·3	57·0	56·4	59·8	56·8
37	52·1	53·8	55·1	56·9	55·9	58·0	55·9	54·3	55·5	56·9	54·3	55·5	55·3	59·0	55·6
38	50·4	52·2	53·8	55·7	55·2	57·1	54·8	53·1	54·8	56·8	53·2	54·8	54·5	58·7	54·7
39	49·5	50·9	52·0	52·5	52·1	54·0	52·3	51·6	52·5	53·8	51·8	53·1	52·6	56·3	52·5
40	48·5	50·1	50·9	51·7	50·9	53·3	51·4	50·6	51·4	53·2	50·9	52·6	51·7	55·9	51·6
41	46·6	47·5	48·3	49·3	48·2	50·4	48·7	48·3	49·1	50·9	48·2	49·8	49·3	53·9	49·0
42	46·1	46·9	47·8	48·1	47·4	49·3	47·9	48·1	48·4	50·3	48·4	49·7	49·0	52·7	48·5
43	43·0	42·8	44·5	45·4	44·6	46·8	44·8	44·3	45·5	47·8	44·7	46·1	45·7	50·6	45·3
44	43·1	43·4	44·9	45·5	44·8	46·9	45·1	45·0	45·6	48·2	45·5	46·9	46·2	50·5	45·7
45	42·3	42·5	43·5	43·8	43·6	45·4	43·8	44·0	44·7	46·8	44·5	45·9	45·2	49·7	44·5
46	41·0	40·3	41·1	40·8	40·4	42·1	40·9	41·4	42·0	44·4	42·6	44·3	42·9	47·4	41·9
47	39·6	38·9	40·2	40·6	39·7	42·3	40·3	40·7	41·3	43·9	41·3	43·1	42·1	47·3	41·2
48	40·4	39·9	40·4	40·1	40·4	41·9	40·5	41·8	42·1	44·6	42·3	43·9	42·9	46·8	41·7
49	36·2	35·9	36·5	36·5	36·3	38·5	36·7	37·5	38·4	41·1	37·8	40·0	39·0	44·6	37·9
50	38·1	36·6	37·3	38·0	37·9	40·4	38·0	38·6	39·3	42·2	39·1	40·7	40·0	44·7	39·0
51	37·2	36·1	36·6	36·3	36·6	38·3	36·8	37·9	38·0	41·0	39·0	40·2	39·2	44·3	38·0
52	38·2	37·0	37·5	37·4	37·5	39·4	37·8	39·3	39·1	42·2	39·8	41·6	40·4	44·5	39·1